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Handling Sheep on Timber and Brush Ranges of Idaho

By BRYANT S. MARTINEAU, Forest Service.

PRIOR to 1897 sheep were excluded from National Forest reservations on the ground that sheep grazing was injurious to the forest cover. Exception to this rule was then made and sheep were permitted to graze on the forests in Oregon and Washington, because it was decided, upon investigation, that "the continuous moisture and abundant rainfall on the Cascade and Pacific Coast ranges makes rapid renewal of herbage and undergrowth possible."

Where range is overstocked, as much of it was in these early days, unwarranted damage to forest cover is, without doubt, one of the results. The same statement, however, would hold true as regards the native forage crop or a field of alfalfa. The essential problem in each case is to adjust periods of grazing, intensity of grazing, and methods of handling the stock, so as to secure the best possible use of the vegetation consistent with good forest or farm practice, and with the general welfare of the livestock. If this is done the areas of Forest lands where restriction of sheep grazing is necessary will at least be localized.

To bring about such consistent use of the ranges has been one feature of the constructive policy adopted by the Department of Agriculture in the administration of grazing on the lands within the National Forests. As a consequence, sheep grazing has been extended to practically all of the National Forests in existence today, and

effort is being made to further adjust both range management and methods of handling the sheep so as to obviate to the greatest extent possible, the need for closing areas to protect forest cover as forest management becomes more intensive in future. During the past four years especially, the relation of grazing to forest reproduction and forest cover in general has been one of the major grazing problems under in-

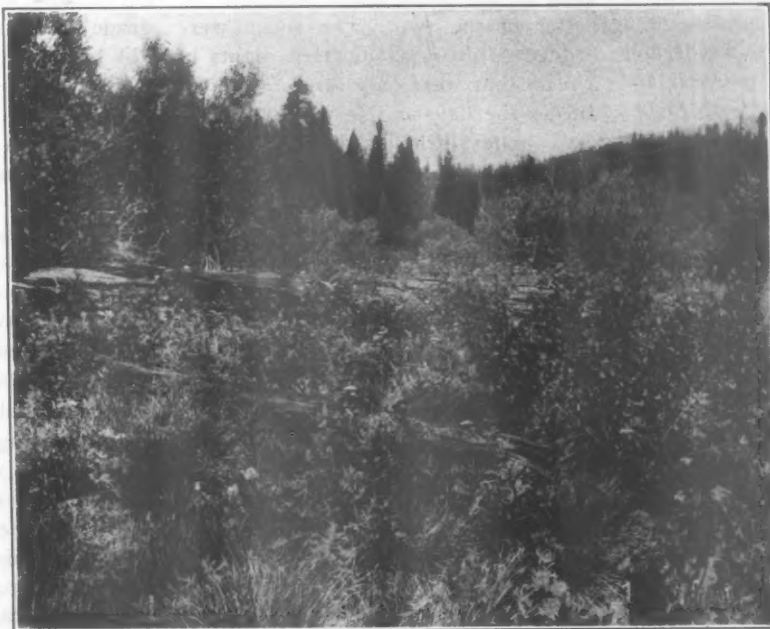
careful study would result in more efficient management from the standpoint of the sheep industry, as well as from the standpoint of forest management.

The aim was primarily to determine: (1) to what extent grazing under the existing system of range management and the existing methods of handling the sheep was retarding forest reproduction on the lands in question; (2)

to find out to what extent the injurious effects of grazing were due to methods of handling the sheep, and if possible, to develop methods of handling the sheep and utilizing the range which will decrease or eliminate the harmful effects; (3) to demonstrate the practicability and advantages of the "bedding out system" of handling sheep on timber and brush ranges. The present article is limited primarily to a statement relative to the study and the results as they pertain to Number (3), the practicability and advantages of the "bedding

out system" for application on timber and brush ranges.

The general plan of the experiment was to place at least one allotment and one band of sheep under the control of the investigators to insure herding under the best methods known, and then, by careful investigation, to determine the extent of injury to tree growth and range, the growth of the sheep, loss of sheep, and cost of handling under the improved method as compared with the extent of injury to



RANGE CHARACTERISTIC OF OLD BURNS AT MEDIUM ALTITUDE ON THE AREA UNDER EXPERIMENT.

vestigation by the Forest Service.

In 1912 investigations along this line were initiated on the Payette Forest in Idaho for the purpose of working out efficient management of sheep grazing on approximately 1,800,000 acres of yellow pine lands in South Central Idaho. The investigation was prompted by the belief that the existing system of management was resulting in unwarranted, and perhaps unnecessary, damage to the young forest growth, and by the further belief that

tree growth and range, the growth of sheep, loss of sheep, and cost of handling for a similar band of sheep on a similar, adjoining allotment where the sheep were handled under the old method of returning to a central bed ground or camp for several nights in succession.

The area selected for the study is a part of the Deadwood River drainage basin of the Payette Forest. It extends in altitude from 5,000 to 8,000 feet and consists of rolling hills of moderate steepness. With minor exceptions, the entire territory used is timber and brush range of inferior quality, the best range occurring on the limited area of old burns at the higher elevations.

In general the forage consists of a moderate stand of grasses, weeds and browse. The principal grasses are pine sedge and pine grass, both of little value as forage, and a small amount of blue grass, blue bunch grass, and brome grasses, which are valuable for forage. The principal weeds are fireweed, geraniums, white dock, wild hollyhock, small sunflower, woolly weed, and browse of minor value. The browse consists of snowberry, currant, mountain ash, buckbrush, twin berry, and mountain laurel (*Ceanothus velutinus*). At best, the area is below the average in quality, of summer range within National Forests for the production of lambs. Prior to its use for experimental purposes in 1912-13-14 it was only partly used for sheep grazing owing to its inferior quality.

Results—Growth of Sheep.

In 1912 the band handled under the "bedding out system" contained 1,512 grade Rambouillet ewes and 1,260 lambs. They were placed on the experimental area July 10, and from that date to September 11 were herded under the immediate supervision of the writer. Open, quiet herding, with little use of dogs, was practiced during the day, and the sheep were, except in rare instances, bedded only one night in a place. Twenty average lambs weighed and marked on July 11 showed an average weight of 42

pounds. On September 10 the same lambs weighed an average of 57 pounds, having made a gain of 15 pounds, an average daily gain of 0.24 pounds.

The band handled under the old system of herding on an adjoining allotment contained 1,747 old sheep and 456 lambs of the same breed and grade as those in the experimental band. Twenty average lambs, weighed and marked July 13, showed an average weight of 43 pounds. On September 11 the same lambs averaged 54.4 pounds, having made a gain of 11.4 pounds, 3.6 pounds less than the average gain made by the lambs of the experimental band. The allotment used by this band was considered the better of the two. The sheep were bedded as many as fourteen nights in a place, but were only rarely molested during the day, and as a consequence were under little disadvantage compared with the experimental band, except that they were returned to a central bed ground instead of bedding on the range.

In 1913 the experimental band, handled exclusively under the "bedding out system," contained 1,000 grade Cotswold-Rambouillet ewes and 965 lambs. On June 24 when they were placed on the experimental area, twenty average lambs weighed an average of 39.3 pounds. On September 19 the same lambs averaged 77.91 pounds, having made a gain of 38.61 pounds in eighty-six days, an average daily gain of 0.44 pounds.

The band under observation on the check allotment contained 1,000 ewes and 730 lambs of the same breed and grade as those in the experimental band. The owner of this band was convinced that the "bedding out system" of herding will produce the best sheep, and consequently directed his employees to adopt this system. The check band, therefore, in this case was handled in the same way that the experimental band was handled under the direction of the writer. Twenty-five average lambs showed an average weight of 39.06 pounds on June 23

when they were placed on the check allotment, and when reweighed September 19 the average weight was 77.91 pounds, a gain of 38.85 pounds in eighty-seven days, or an average daily gain of 0.44 pounds, the same as that made by the lambs of the experimental band. While the results do not furnish a comparison of the new method and the old method, they do show the equally important fact that excellent results can be secured without an expert herder under the "bedding out system" of herding.

In 1914 the experimental band contained 1,143 grade Merino and Cotswold ewes, and 1,126 lambs, sired by Merino and Cotswold rams. The check band was of the same breed and grade and contained 1,040 ewes and 914 lambs. The lambs of the experimental band were dropped during March; those of the check band were dropped from approximately March 15 to April 15, making a difference of fifteen days in age. Both bands were again handled under the "bedding out system," as advocated by the Forest Service, the owner of the sheep having been convinced of the advantage of this system.

On June 24, when the sheep were placed on the experimental areas, twenty average lambs of the experimental band weighed an average of 52.6 pounds; on August 18 the same lambs weighed an average of 75.7 pounds, a gain of 23.1 pounds, or an average daily gain of 0.42 pounds. Twenty average lambs of the check band weighed June 24 averaged 46.5 pounds, and on August 18 the same lambs averaged 70.7 pounds, a gain of 24.3 pounds, an average daily gain of 0.44 pounds.

It will be noted that the lambs of the check band in 1914 made a larger daily gain than those of the experimental band, but were five pounds lighter when the final weights were taken August 18. The differences are most probably due to the fifteen days difference in age, which resulted in the lambs of the experimental band having passed fifteen days more than the

check band of the period of most rapid gain before they were placed on the experimental allotment June 24. This is shown by the fact that on June 24 they weighed 52.6 pounds, while the lambs of the check band weighed 46.5.

By way of summary, then, it may be stated that during 1912 the lambs of the experimental band gained 3.6 pounds more than those of the check band, the difference in favor of the experimental band being due primarily to the fact that they were herded under the "bedding out system" while the other band was herded under the old system of returning to a central camp for from five to fourteen nights in succession. In 1913 to 1914 both bands were herded under the "bedding out system" and the lambs of both made approximately the same gains. Further, the gains during 1913 and 1914 were above the average, notwithstanding the fact that the range is below the average in quality for the production of lambs.

Loss of Sheep.

During the season of 1912 the loss from the experimental band, handled under the immediate supervision of the investigators, was four sheep killed by predatory animals and fourteen unaccounted for at the end of the season; during 1913 only two were killed by predatory animals and three were unaccounted for at the end of the season; during 1914, so far as known, no sheep were killed by predatory animals, but twelve were unaccounted for at the end of the season. During the experimental period of three seasons, therefore, the total known loss from predatory animals was six head of sheep, and the total number unaccounted for was twenty-nine head, making a grand total of only thirty-five head killed by predatory animals and unaccounted for during the three seasons—less than one-half of one per cent. Throughout the period the band to which these losses apply was herded exclusively under the "bedding out system," as described in detail later.

During the season of 1912 the loss in the check band, handled under the

old system of herding, was one killed by predatory animals and six head unaccounted for at the close of the season; during 1913 none were known to have been killed by predatory animals, but thirty-six were unaccounted for at the close of the season; during 1914, twenty-six head were unaccounted for at the close of the season, making a total of sixty-nine head killed by predatory animals and unaccounted for during the three seasons, approximately 1.2 per cent.

As pointed out under the discussion of growth, the check band was handled

the "bedding out system" on timber and brush ranges.

Many sheep owners and herders have expressed the belief that losses from attacks by predatory animals, and from straying, will be greater when the "bedding out system" is followed than when the sheep are returned to an established camp night after night. The losses given above for the three years of experimental tests are based upon actual counts. They speak for themselves and should aid in overcoming the fear of excessive loss under the "bedding out sys-



RANGE CHARACTERISTIC OF A LARGE PART OF THE YELLOW PINE TYPE OF THE AREA UNDER EXPERIMENT.

under the old system of returning to a central camp for several nights in succession, during 1912, but during 1913 and 1914 the owner of the sheep instructed his herders to follow the "bedding out system," and accordingly the sheep, during 1913-14, were herded in a manner almost identical with that followed in handling the experimental band under the direction of the investigators, the only difference being that perhaps the experimental band was given a little the most attention as a result of the careful study to find out any difficulties involved in following

tem." It has been the experience of members of the Forest Service throughout seven years of experimental observations in handling sheep on the range that coyotes are less apt to attack the sheep on a first night bedground than on a bedground which has been used for a number of nights. This apparently is due to the fact that the coyote is somewhat suspicious in new surroundings and becomes less so after a few days and nights prowling about the camp. Further, attacks by coyotes are most frequently in late evening when the sheep are trailing

into camp and in early morning when they are trailing out. Under the "bedding out system," as advocated, the herder is with his sheep at these times and has them definitely under control. In fact, he is better prepared to protect them than is ordinarily the case when they are returning to or leaving a central bedground, for the reason that under the latter system the sheep are frequently allowed to trail off the bedground in the morning while the herder is getting his breakfast, and in the evening when they near the bedground the herder frequently leaves them and goes to camp to prepare his supper. Under the "bedding out system," on the other hand, careful attention is advocated from mid-afternoon or early evening until the sheep shade-up when the sun gets hot the next morning.

All of the data collected thus far in connection with the experiments conducted tend to show that the heaviest losses are the result of small bunches of sheep being separated from the main band and left out over night or never found at all. The experimental observations have shown that losses of this nature can best be avoided by avoiding the use of dogs in rounding up the sheep, and by the herder moving quietly around the outside of his band and watching for fresh tracks, which will indicate that sheep have left the band and not returned. Too frequently under the old system when a band is rounded up and returned from the range one or two miles to a central camp in the evening, a small bunch of sheep is separated from the main band and left on the range. When darkness comes they will graze out to some open spot and bed for the night. They will rarely follow the band the long distance to the central camp. Where the band is bedded on the range and reasonable care exercised, any stragglers have a good chance of reaching the main band when they bed, or of being picked up early the next morning.

Injury to Range.

At intervals during the grazing sea-

son each year and at the close of the season the range on each allotment was carefully examined to ascertain the location, extent, and cause of any injurious effects as the result of grazing. On the check allotment in 1912, when the sheep were driven to and from an established bedding ground a minimum of five days and a maximum of fourteen days, the area in the vicinity of each bedground was over-grazed, and many trails were formed leading from it in different directions to the range. On the experimental area during the same season, where the sheep were handled entirely under the "bedding out system" and the use of dogs almost eliminated, the damage around bedding grounds was negligible and there was a marked absence of trails. While a bedground used only one night gives the appearance of injury immediately afterward, the effect is largely temporary and recuperation, except in rare cases, is complete before the following grazing season. Range used by sheep other than the two bands under careful observation was examined, and it was found that long-time bedding in one place, and the resultant excessive trailing to and from the range, in many cases had resulted in the formation of erosion gullies, in addition to denuding a considerable area of forage vegetation and young forest growth.

Owing to the poor quality of the range, which required a very large acreage containing a great deal of waste territory for each band, no reliable actual figures were secured on comparative acreage by the bands under the two systems. The data collected, supplemented by a thorough examination of the various ranges, however, substantiated the conclusion of experiments conducted elsewhere, that range used under the "bedding out system" will carry at least 10 per cent more sheep than the same range when used under the old system of trailing back and forth to a central camp. This estimate is believed to be conservative, and the difference in carrying capacity will vary from 10 per cent

upward in favor of the "bedding out system," the amount of difference depending upon the extent to which the sheep are close herded and trailed under the old system.

Injury to Tree Growth.

A total of 151 plots were located for the purpose of finding out the extent of injury to tree growth as the result of grazing under various conditions of topography, vegetation, season of grazing, intensity of grazing, and methods of handling the sheep. This large number of sample areas, on which all tree growth was carefully examined from two to four times during the season, made it possible to secure comparative figures on injury for all intensities of grazing, from total exclusion of sheep to the over-grazing which occurred around permanent camps and bedgrounds.

It was found throughout the three years' test that the greatest loss of young forest growth, due to grazing or to any other cause, is in seedlings under three years old. No seedlings over one and one-half feet in height are killed by sheep with grazing of any reasonable intensity. A total of about 10 per cent of the seedlings on an area probably will be killed if a moderate amount of grazing is done each year after the reproduction is three years old. The loss of seedlings under three years old is very large, whether the area is grazed or not, but is considerably larger on grazed areas than on ungrazed areas, the proportion of the reproduction actually killed increasing as the intensity of grazing increases.

In general it was concluded, as a result of the careful observations, that there is a considerable amount of palatable forage under yellow pine timber which ought to be utilized as completely as possible. The greater part of this feed dries up early in the season, and in order to be utilized without injury to the range and forest cover, and to the best advantage of the sheep, range on such areas should be grazed early in the season. If this precaution is observed, and over-stocking as well as improper methods of

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handling the sheep avoided, it should be possible to graze the timber lands in question without unduly retarding the forest reproduction. Where tree reproduction is unsatisfactory and it is essential to secure a stand as quickly as possible, it may be necessary to close the area to sheep grazing temporarily.

As regards the method of handling the sheep, it was apparent from the study of injury to tree growth under this system, and injury under the old system of handling, that the "bedding out" or "burro system" should be used on all timber range. Sheep should not be driven any more than is absolutely necessary and the bedground should be changed every night. Even two nights' use of the same bedground was found to be very disastrous to existing reproduction. Considerable damage can be avoided by locating sheep trails and driveways where they will do the least harm to reproduction. Ordinarily, the ridges are the best for this purpose.

Conclusion.

In conclusion it may be stated that the "bedding out system" worked satisfactorily during the three years of test on the timber and brush ranges in question. It was shown, to the satisfaction of the sheep owners as well as the investigators, that this system has a marked advantage both to the sheep and to the range, and that there is no great difficulty incident to putting it into application. Further, if this system is carefully followed on timber ranges, much of the damage which in the past was the prime reason for objection against sheep grazing can be eliminated. This last point in itself is worthy of consideration by sheep owners.

Suggestions for Herding Under the "Bedding Out System" on Timber and Brush Range.

Under the "bedding out system" of herding the aim should be to approach conditions under pasture as nearly as possible without fencing. In the morning the sheep should feed out in

a general direction, being either allowed to choose their own course or directed, as the case demands. They should be permitted to spread as rapidly and as much as they desire as long as they do not trail, the tail end of the band being left to follow up at leisure and the leaders watched without being molested unless they travel too fast or too far. Sheep handled in this manner soon spread out and as they scatter, settle down, cease traveling, and graze contentedly.

The herder should wander about in the vicinity of the flock, keeping an eye on the course and actions of the leaders. He should move quietly and keep out of view of his sheep unless he desires to turn them. Dogs should be used only in the protection of the flock against predatory animals. The abrupt appearance of the herder ordinarily will change the course of travel of any portion of the band without disturbing the entire herd. When the sheep have settled down, which usually occurs between seven and nine o'clock in the morning, the herder may safely leave them and go to camp for his meals. They will usually need no further attention until they are gathered in the evening, and the herder may spend the intervening time selecting a new bedground, moving his bed to it, and cooking or attending to other duties.

The best time to start gathering the flock in the evening will depend upon the type of range. In brushy country it is necessary to start much earlier than would be the case on a more open range. As a general rule the herder should allow time to gather the entire flock in a leisurely way before dusk. Once gathered they should be allowed to graze in close formation until they bed of their own accord. Advantage should be taken of the best possible area in the near vicinity for a bedground, and the sheep should be directed so that they will be on the selected area at dark. This is an advantage in protecting the sheep against predatory animals and an aid to the lambs in finding their mothers.

In gathering the flock the herder

should begin by circling the outermost tracks made by the band during the day. He may whistle or shout to make sure that none are being left as he closes in on the main herd. With reasonable care, any stragglers that may have become isolated are turned toward the main band. After the sheep are gathered and directed toward the area selected for a bedground, the herder should pass quietly through the band, count the bells and markers, and size up the herd to make sure that he has them all. From the time he begins gathering the flock in the evening until he leaves for his meals on the following morning he should remain with his sheep continuously to prevent straying and as a protection against attacks by predatory animals, which are usually more active at dusk and in the early morning than at any other time.

In following this plan sheep should not be directed or driven to water each day unless it is naturally convenient for them to reach it. So far as practicable they should be allowed to choose for themselves the frequency of watering. It has been found that sheep do not crave water oftener than every two to five days where the forage plants have average succulence, and where there is a perceptible fall of dew. They seem to thrive equally well without water for such periods as with it, and in cool cloudy weather they will often go as long as a week without apparent inconvenience or harmful effects.

If these general suggestions are followed in handling sheep on any type of range, the result will be heavier lambs, no increase in loss, a marked increase in the carrying capacity of the range, and marked decrease in the damage to forest cover, over what can be accomplished under the old system of close herding during the day and trailing to and from a central bedground for a number of nights in succession. The sheep owners who cooperated with the investigators in carrying out the experiment were convinced of these facts.

CROSSING DOMESTIC SHEEP WITH THE ROCKY MOUNTAIN BIG HORN (OVIS MONTANIS.)

By F. J. Hagenbarth, Spencer, Idaho.

About twelve years ago the writer had occasion to superintend the wintering of several bands of sheep on the Big Hole river in Beaverhead county, Montana, on a ranch at that time owned by Joseph A. Brown and known as the Brown ranch.

Along the latter part of November, one of the herders awoke one morning to look out over his herd and was astonished to see a big, wild mountain sheep casually inspecting the ewes. He prepared his breakfast and in due time started the sheep out on the range, their usual grazing grounds. The big ram seemed to take everything as a matter of course, went on with the ewes as though he had been born and raised among them.

The ram continued among the ewes for three days, apparently paying no attention to the herder or to the dogs, going out on the range in the morning with the ewes and returning in the evening to the bed ground, where he behaved himself as properly as any well regulated ram should.

About the third day Mr. Brown, who had heard of the strange performance, drove down to the sheep camp in his phaeton with the top up. He drove out on the range to the vicinity of the herd of sheep, and as soon as the Big Horn caught sight of the strange rig he was greatly disturbed, and immediately struck out from the herd over the hills and far away. This was the last ever seen of this particular ram.

In due course of time, the last of April, the product of this strange mating began to appear in the shape of long-legged, reddish spotted hybrid lambs, with drooping ears and with a coat of wool under, apparently, a coat of hair, a good deal the same manner as a beaver or otter carries its fur. There were twenty-four of these lambs dropped all told. At shearing time there were about eighteen left.

When the ewes went into the shearing pens to be shorn, the lambs were separated from their mother, along with the other lambs. The forty-two inch panels of which the corral was built did not in the least stand in the way of these young hybrids going from corral to corral. They could stand flat-footed and jump the fences without any apparent effort. This they did, seeking their lost mothers.

After shearing the ewes and lambs were sent to the hills as usual, and after they reached about three months of age the lambs began disappearing in a mysterious manner until there were only two left. These two were brought in along with the ewes at shipping time and were picked out of the herd, kept in Idaho for a short time, and then brought down to Salt Lake City and were given to Liberty Park in that city. The writer learned that either through the work of some miscreant or in some peculiar manner these two hybrids seemed to disappear suddenly from the face of the earth, as nothing was seen or heard of them after a certain day.

This story will set at rest the controversy as to whether or not the wild mountain sheep will cross on the domestic sheep. This case is well authenticated and is known to at least a hundred persons in Idaho and Montana.

RUNS SHEEP IN PASTURES.

Pastorial conditions are splendid. There are no sheep for sale in this vicinity, those who have sheep are pleased with them and will not sell. There are a few men going into sheep business in a small way. This section has many advantages to the man who wishes to commence in the sheep business.

The climate is mild in winter and hence there is no reason why a man could not have his ewes to lamb in winter, even as early as December, if possible. If you have a good mutton type of sheep there is no reason why this lamb should not weigh in the neighborhood of ninety pounds by

May. Green pasture can be had all winter by sowing red oats, barley, wheat or rye. No country on earth will produce more tons of feed to the acre, if planted in cane, and this makes splendid silage. We are in fifty miles of Ft. Worth, a packery. Good grazing lands can be had cheap. I carried a bunch of sheep on my range last winter that lambed in January and did not feed and saved all the lambs. In other words, I did not save them the mothers did, for I run them under a wolf and dog proof fence and paid no attention to them and got about 90 per cent of lambs and did not lose a sheep. We have very few wolves and depredating dogs in this section. I carry about 1,200 Angora goats and about fifty sheep under goat, wolf proof fence and have lost probably ten head in ten years from dogs and wolves.

I do not believe, if the sheep were handled properly, that they would have stomach worms in this section at least my sheep are not bothered with stomach worms. My lambs are now as large as their mothers. I believe this to be the best spot to run a mutton type of sheep of any country I ever saw.

J. E. McCARTY,
Bluff Dale, Texas.

AUSTRALIAN WHITEWASH

RECIPE

Following is a cheap whitewash which will stand the rain and weather without coming off, and will do for galvanized iron: Place enough tallow required for the purpose in a large bucket, then lay about the same quantity of good lime (dry) on top of the tallow—i.e., equal proportions of each; then pour enough water on to slake the lime. When the heat from the lime has melted the tallow, and all is well dissolved, stir it thoroughly until all is well mixed; then apply (warm if possible) with a large brush. This will do for any surface. The surface must be quite dry before applying the mixture. If required to dry very white add a small quantity of blue.

Wool Growing In Australia

"SHEEP MANAGEMENT"

By R. H. HARROWELL

IN a previous article I referred to the basic reasons that underlie the methods adopted by Australian wool growers to ensure their clips being placed before the buyer in the most attractive and the most "available" manner. I explained that manufacturers require certain classes of wool for certain fabrics and buyers are instructed to purchase the class of wools their principals require. They are consequently willing to pay more for the wool if they can easily locate the kind they want, and they are compelled to pay less for it if the qualities they are after are buried amongst inferior stuff.

I explained how sheep are classed and mated so as to increase the proportions of good wool each sheep carries and decrease the proportion of inferior sorts, and I mentioned the fact which is absolutely correct that the Australian wool grower works with the one object ever before him namely, to place his wool attractively under the buyer's eye.

Breeding is of course of primary importance because before you can grow good wool you must have good sheep. But the grower's responsibility does not cease when he has succeeded in breeding the good sheep because he has devoted time and thought to securing for the sheep such conditions that they will be able to develop their best characteristics to the highest degree.

Wool is a product extremely sensitive to environment. Being intimately associated with the nervous system of the sheep it is very sensitive to the

conditions the sheep have to undergo. In fact the wool fibres register any fluctuations the sheep may undergo, while the wool is growing just as a thermometer will register the temperature. For instance if a farmer were to force his sheep ahead for the first four or five months after shearing and then subject them to hard conditions for say the next three or four months, all the attention in the world that could be devoted to them subsequently up to shearing time would not remove the baneful effect made upon the wool fibre in consequence of the check the sheep were subjected to. To be of

necessary to see that the sheep are given every opportunity for producing it. Methods employed to attain this end vary of course, according to the nature of the country on which the sheep run and the local conditions which prevail. It is, therefore, not possible to lay down rules in any detail and only general principles can be mentioned.

Take for instance a run of 50,000 acres in extent, one of the first considerations would be subdivision. The possibility is that the ranch would have very little in the way of natural water supply and this is a matter that would materially affect all fencing arrangements. Experience has proved that sheep thrive better if they can secure occasional change of pasture, so therefore it is better to have several small paddocks than one large one. But water supply is essential and more often than not adequate subdivision involves the installing of artificial supplies.

Some sheep farmers fence their paddocks off from water and attempt to get over the difficulty by driving the sheep periodically to some more or less distant source of supply. Now that is absolutely wrong for it is not within the province of man to say when a sheep must have a drink—that important matter must be left to the sheep at the call of nature. Sheep driven periodically to water never thrive. Their nervous systems are affected by the drive, and not being able to obtain water when they want it causes them to hang around the gate which bars the way to water and



CORRIEDALE RAMS IMPORTED BY THE BUREAU OF ANIMAL INDUSTRY

value to manufacturers wool must possess certain characteristics, and one of the most important is soundness. The staple must be sound and elastic enough to stand the process of combing and other treatment it has to undergo. If wool has a "break" in the fibre or is "tender" throughout, its value for manufacturing purposes is considerably lessened. It has to be utilized for inferior purposes, and the net result to the grower is that he gets less for his clip.

Therefore, having bred into a class of sheep that are capable of producing a good even clip of wool it becomes

they fret in consequence. The mere process of driving them means loading their fleeces with dust so that when time arrives the fleeces are not anything like up to the standard the sheep are capable of producing. The wool most likely will be short and starved and if the sheep are inclined to produce much yolk or grease, it will be grimed and discolored with dust and altogether the returns secured by the sheep owner will be far below what they ought to be.

For sheep carrying big fleeces, two miles is the limit they should have to walk for water and a shorter distance should be arranged if possible. In cases where it is imperative for sheep to walk further sheep carrying lighter fleeces would be found to pay better. Some of the lighter cutting flocks in the far interior of Australia have to walk six miles or more to water, but as seasons justify it, these conditions are improved.

The water supply should be fresh and pure. In some countries surface supplies are fairly plentiful but unhealthy and in these cases it is a very unsound policy to allow them to be used for watering sheep. It would be better to drain them or fence them off and incur the expense of boring or sinking wells. In some localities surface tanks or drains give good water for stock and in other localities it is hard to retain catchment water and wells have to be resorted to. But whether wells or drains it will be found to pay best to run the water into long troughs easily accessible to the sheep. If sheep are allowed to water at drains and ponds or at creeks and rivers they are liable to puddle up the approaches to these sources of supply and the wool is depreciated often to a most serious extent. The most general source of water supply now adopted on well improved sheep stations in Australia is obtained by pumping water with a windmill from either a well or a surface tank into large elevated iron tanks from which the water reticulates to the troughs, where the supply is regulated with ball cocks.

Reverting now to the subject of subdivision to return most profit per acre a station carrying say 20,000 sheep be subdivided into paddocks to carry about 1,000 sheep, with water in the center if possible. A big mob of sheep in one paddock will trample down more grass than they will eat and raise dust which will tend to depreciate the value of the wool. The smaller the paddock the less grass destroyed by the trampling of the sheep, and the more closely the station is subdivided, the better will be the opportunities for giving the sheep a change of pasture. A five-wire fence with posts twelve feet apart will be sufficient to enclose Merino sheep though a stouter fence would be required for crossbreds.

As to how long sheep should remain in one paddock, everything depends upon the nature and condition of the country and the season. The farmer must here use his own judgment, and he need only be guided by the general principle that as long as the sheep appear to be doing well it is advisable not to touch them. Sheep like human beings become accustomed to surroundings and unless the change is undeniably for the better they will fret when taken from their familiar pastures and the wool registers this incident in their careers and reflects it either in the way of lack of length or lack of soundness or both. Sheep are nervous animals and the wool is closely related to the nervous system so that the less the sheep are interfered with (providing they are doing well) the better.

To keep the wool growing without a break means keeping the sheep in good condition and doing well. Never shift the sheep too suddenly from good to bad feed or vice versa. If this is done the wool will register the result against the farmer's pocket.

It may be advisable to add just a word about stocking. Over stocking especially in an uncertain rainfall leads to misfortune if not to ruin. Even where the rainfall is reliable, over stocking means certain loss because with light stocking a farmer will rear more lambs with less ewes, grow more

wool with fewer sheep, grow bigger frames and realize more per head for his sheep in the open market. Over stocking will cause disease and constant worry while light stocking, if not carried too far, means an easy mind and a steady profit as well as making the run and stock a pleasure to look at. When seasons fail it is the man who is over stocked who comes to grief first.

SHEEP FOR THE RAM SALE.

Enclosed find our check for \$250.00 as a guarantee that our sheep will be sent to the ram sale as catalogued. We are sending 50 registered Rambouillet yearling stud rams for flock headers; 150 yearling Rambouillet range rams that are eligible to registry; 50 registered yearling Rambouillet stud ewes; 50 registered Hampshire stud ram lambs for flock headers; 50 registered Hampshire yearling ewes; 50 full blood Hampshire yearling ewes; 100 Hampshire ram lambs for range purposes and eligible to be registered. These Hampshires will weigh up to 175 pounds at time of sale and will breed from forty-five to sixty-five ewes this fall. All these ewes and rams that are not registered are eligible to registry if anyone desires to pay the fee of \$1.00 each. I trust that you will have a successful sale.

BUTTERFIELD
LIVESTOCK COMPANY,
Weiser, Idaho.

IDAHO FAT LAMBS.

R. G. Price, Gannett, Idaho, was on the Omaha market Friday, June 25 with a string of Idaho sheep and lambs. The bulk of his lambs sold as killers at \$9.75, the few culls that were in the band going at \$7.15. Mr. Price also had a car of yearlings that sold at \$7.25 and a half deck of fat ewes that sold at \$5.25.

It is Mr. Price's opinion that the range is in better condition than for many years and that the bulk of the lambs will move fat and few feeders will be for sale.

ELIMINATING THE COYOTE.

By M. A. Smith, Utah.

The accompanying halftone will show how successful we were in cleaning up coyotes and wild cats. In this picture there are 46 coyotes and seven cats. They were all caught among the sheep during lambing from April 20 to June 10. Whenever the trapper caught a bitch that was out for lamb on which to feed her young, he would fasten a chain to her neck and then let her out of the trap and follow the mark made by the chain. Always in from one to three days she would go to the den, then the trapper would dig the whole outfit out.

Practically all the coyotes in this picture are what could be termed, permanently located and all the old ones are well skilled in killing sheep. They were also "poison proof" as they all had been offered an abundance of strychnine in the carcasses of horses and sheep that had been out in November and December of last year. The baits that were out had all been eaten and so far only a few poisoned coyotes have been found; not over one to each ounce of strychnine. There must certainly be something wrong with much of the strychnine used, as it should kill coyotes as well now as it did five or ten years ago. It seems to me there is great need of the government making tests of the strychnine now on the market in order to fix a standard strength.

Since the 15th of last September there has been 350 coyotes and cats killed on the ranges used by sheepmen along Curn Creek and Duchesne River in eastern Utah. On all these animals the sheep men using this range have paid a bounty ranging from \$3.00 to \$5.00 per head. There are about 50,000 sheep in this section and the bounty will amount to around $2\frac{1}{2}$ cents per sheep. The poisoning was done by each individual and the expense would amount to $\frac{1}{2}$ cent per sheep so that the total cost of killing these 350 predatory animals will amount to around 3 cents for each sheep on this range.

We estimate that we have killed about 90 per cent of the coyotes on this range, and all concede that the loss of sheep and lambs from coyotes this spring on this range is the least of any year in the history of the industry. Another season's work and the coyotes will be as scarce as buffalo on this range, except for those that drift in from the Forest Reserve and off the land devoted to reclamation work.

Bounty laws should be revised so as to make the bounty money available as soon as the skins are accepted by the county officer instead of having to discount the warrants to get the cash as we do at present. As soon as coyotes and cats are exterminated, the "bed-

where they will kill out the native vegetation and cause untold injury to our wool unless they are checked, which can be done better now than hereafter.

IN NORTHEAST OREGON.

We held a wool sale in Enterprise and Joseph, Oregon, June 25th. Fine wool brought from nineteen and three-fourths cents to twenty-one and one-eighth cents per pound and coarse wool as high as 28 cents per pound. I think that the Wallowa county wool clip, as a whole, is as good as we have ever had, from the point of shrinkage and long staple. It looks like the fine



PELTS OF 46 COYOTES AND 7 CATS KILLED BY A UTAH HUNTER.

ding out" system of herding sheep will be universally adopted during the spring and summer season.

I also wish to make comment on the bur and weed pest which is certain to give us untold trouble in the near future. I find that the Canadian thistle is thriving along wagon roads where it grows as tall as the native scrub oak. The Russian thistle is also getting well established on the Utah Desert wherever wagon roads or railroads traverse. The cockle bur is likewise well established around watering places and in the washes. Other noxious weed are showing their intentions to establish themselves on our ranges

wool should have brought more money for that reason.

Some wool from this county was consigned to the Columbia Basin Warehouse Company, at Portland, Oregon. The Warehouse Company hopes to get a top price for this wool, and many growers in Oregon think that they will make a success of handling wool. They are hoping to get the major portion of the wool of the Northwest consigned to them next year.

There will be about sixty thousand coarse lambs shipped from this county this fall and while the lambs did not come off the spring ranges as fat as

the sheep owners expected them to be, we hope we will still be able to make them prime in time to ship this fall.

Our high mountain feed promises to be the best we have ever had and we have inaugurated the bedding-out system in handling the sheep of this county. Those of us who tried it last year found that we could greatly improve the quality of our lambs by doing this. I mean by the bedding-out system that we do not bring the sheep to camp every night, but allow them to camp wherever night overtakes them. Most of the herders that have tried this have agreed that this is the much better way to handle them.

Wallowa county is very short of sheep. I do not think there is over eighty-five thousand sheep in this county, not counting the lambs, and I doubt very much whether they will ever exceed this number in the future, although the sheep business has been a very paying proposition to the sheepmen of this county this year, and we think the prospects are very bright for the future.

Lambs have been contracted for fall delivery in this county for five dollars seventy-five cents (\$5.75) per hundred weight. Some February lambs have been sold for July delivery for six and one-half cents per pound and six cents has been offered for March lambs delivered in August. There has not been any contracting for ewes so far, but the demand will be good for young ewes later on.

Yours truly,
FRED W. FALCONER,
Enterprise, Oregon.

POISON PLANTS.

The Department of Agriculture has just issued a bulletin (No. 125) upon "Zygadenus or Death Camas." This bulletin will doubtless be of interest to those who have recently suffered losses due to the poisoning of their stock caused by the eating of this plant.

According to this publication, the death camas is found throughout the United States, and as far north as

Alaska; but it is most abundant from the Rocky Mountains west to the Pacific Ocean. The plant may grow as more or less scattered individuals, but it is sometimes massed together in large areas. In appearance it is grass-like, growing from a rootstock or bulb which looks like an onion; while the flowers are greenish white or yellow and somewhat resemble mignonette. In the Northwest the plant is known by numerous common names, such as lobelia, soap plant, alkali grass, water lily, wild onion, hog's potato, squirrel food, poison sego, etc.

Numerous experiments have been made to discover a remedy for poisoning of sheep caused by eating this plant, but no satisfactory or practical medical remedy has been found. To prevent losses, it is important to recognize the plant and avoid camping stock on it at any time, or grazing upon it when the animals are hungry. If the animals become sick, they should be kept quiet, and under this treatment many will recover.

WILL ATTEND RAM SALE.

I am now up in the mountains of Northern California with the sheep. I fully expect to be present at the Salt Lake Ram Sale unless something unforeseen occurs.

We sold our fine wool at 23 cents, which was one cent above the top. Our lambs have been contracted at \$5.25 per head, which I think is about 50 cents too cheap.

FRED A. ELLENWOOD,
Red Bluff, California.

WYOMING LAMBS SOLD.

Lambing and shearing season in central Wyoming has been far from ideal. Severe storms about the first of May, and again on the 18th and 19th caused heavy losses in young lambs and reduced the crop by approximately 25 per cent. Following that time it has been rainy and none too warm. This has produced much grass on which lambs and sheep have thriven well, and prospects now are that

lambs will be better than they have been for several years.

Many lambs have already been contracted for fall delivery. About one hundred thousand were taken by W. A. Drake at 6 cents, while other feeders have secured several thousand at about the same price and in some cases have paid more. Within the last few days 6½ cents has been offered. It is safe to say that considerably over half of the lambs to be sold here this fall have already been contracted at prices within this range. Old ewes have been contracted at \$3.75 per cwt. Most of this stuff has been bought for Colorado or nearby feedlots.

At this writing the wool situation is slow. Here shearing has been much delayed by rainy weather, and bad roads have prevented bringing in to the warehouses; consequently buyers have had little material on which to work. No clips have been sold here. West of here, at Casper and West, about half of the wools have sold or moved east on consignment. Several choice large clips have gone forward to the National. The clips selling have realized from 22 to 24 cents. Those wools are appreciably cleaner and lighter than last year, while wools here are the cleanest and lightest that they have been in many years, due to climatic conditions. At the same time the staple is well grown and very strong.

As yet no breeding ewes have been offered, and prospects are that there will be few for sale. The number of sheep in east central Wyoming may be conservatively estimated at not over half of the number run here six years ago, when the sheep business was at its height. The advent of settlers is constantly restricting the range, and still further reduction in numbers may be looked for. Old wethers are practically unknown. Lambs and old ewes that have outlived their usefulness are the market products now.

ROSCOE WOOD—Wyoming.

Read the advertisements in this issue of sheep and rams for sale.

The Boston Wool Market

BY OUR BOSTON CORRESPONDENT

SENTIMENT in the local wool trade is strongly bullish, the upward tendency being much more marked than it was a month ago. While manufacturers and dealers both protest that there is nothing in the situation to warrant paying the prices recently noted in the West, it is remarked that there is no falling off in the demand, and that the highest prices of the season have recently been paid in the Triangle and in Montana. Not only have dealers been operating freely in the West, especially in medium clips, but they have also been making further purchases in Australia. Values in Sydney and Melbourne are at the top level of the season, and show a stronger tendency. London opens June 29 with offerings of 232,000 bales, of which 129,700 bales are New Zealand crossbreds. An advance of 10 per cent is predicted on good Merinos.

Wherever the buyer turns for additional supplies, he is confronted with dear wool. There is no relief in sight, and it is not strange that a majority of the members of the trade should feel so assured of continued high prices that they continue to accumulate the new clip wools on a basis claimed to be absolutely impracticable at the opening of the season. Manufacturers have been steadily claiming that the goods market was unsatisfactory, and that it spelled ruin for them to pay the prices demanded by the Western growers. It is notable that the leading interest in the wool manufacturing industry has been a consistent and persistent buyer of wool throughout the season, and has recently secured a large share of the wools offered at the public sales days in Oregon and Idaho.

Lately the tune has changed. Dress

goods mills are having a big business, the increase being largely due to the falling off in the competition from abroad. For the same reason, wool men are looking for a decided improvement to show itself in the men's wear trade in due course. Something of this nature has also appeared in the increased interest being shown in the new serges, which are reported to have been shown to the larger factories, but particulars as to actual business placed are lacking. More confidence is evidently felt in the coming light-weight season than has hitherto been the case. Nothing else could explain the way that the heavy importations of Australian Merinos and fine Cape

diat chance of getting the wools shipped. Not only have the better wools been sold freely, but it is claimed that the faulty and defective wools have been in unexpected demand, and no trouble is anticipated in cleaning up the market of such wools.

Choice lots of Australian 64s are now quotable at 68 to 70 cents, clean basis, and choice 70s cannot be quoted at less than 72 to 75 cents. Scoured Australians are offered at 62 to 65 cents, but offerings are light, mainly carbonized and defective wools. Fine Capes (South African) have continued to move with considerable freedom, the range for good greasy wools being 62 to 65 cents, with poorer wools at 60 to 62 cents. Snow white Capes continue to move steadily on the basis of 60 to 62 cents, according to the quality and condition of the wool. Best lots of South American crossbreds are well sold up, though small lots of straight quarters have recently changed hands at 39 cents, with other lots of similar wools held as high as 41 cents. Montevideo fine wools have changed hands in a moderate way, the scoured



WHAT ONE PACKER OF NICHOLAS SNOW & CO. DID TO REDUCE THE PREDATORY WILL ANIMALS.

wools have been taken up.

Notwithstanding the great weight of such wools which has been brought into Boston this season, stocks here are not excessive. Some of the larger importers claim to have resold a large part of their importations, and most of this business has been done at a very substantial profit. A turnover of 15 cents a scoured pound on the early bought wools has been secured, and some of the more enterprising houses have made a great deal of money during the season. This is especially true of those who had nerve enough to buy wool in Australia last winter, when there did not seem to be any imme-

cost being estimated at 65 cents and upwards.

As noted in recent letters, the bulk of the trading has been in foreign grades, though the demand for domestic wools is slowly broadening. New clip wools are arriving freely from the far West and are being opened up as fast as possible. Good lines have already been sold, both graded and in the original bags. Medium wools are mostly in demand, and the sales thus far have been mainly early shorn Utahs. Original bag wools have sold at 24@26 cents, or 63@65 cents clean, while three-eighths-blood lots have sold at 32@33 cents, the scoured cost being

practically the same as for the original bag wools. Dealers are reticent regarding the actual trading going on, and in most cases refuse to quote actual prices realized.

In the West, top prices of the season were reported in the last days of June. Medium grades were especially strong, as the supply is shortening up. Purchases of such wools have been mainly at 26 to 28 cents, though 29 cents has been paid for several clips in the Triangle and in Montana, and occasionally a choice clip has brought 30 cents. Clean cost landed here is estimated to range from 65 to 72 cents, though the lower figure appears to be the favorite purchase price for average wools. Other buyers claim to be able to pick up some good wools at 60 to 62 cents clean for fine medium and 58 to 60 cents for medium. Fine wools have been comparatively neglected, as the competition here has been too sharp from imported stock. Wherever mill buying has been a prominent feature of the public sales, growers have benefitted, but this is limited to a few mills. In Eastern Oregon, recent sales of fine wool have been made at 17 to 20 cents, the scoured cost laid down here being 63 to 65 cents.

The Texas season has developed slowly. A sealed bid sale was recently held at San Angelo, but all bids were rejected by the Warehouse Association as usual at that point. Kerrville is to have a public sale in the closing days of June, and the trade expects that something may be done at that time, as the Kerrville wools are generally offered without reserve. Some of the new wools have been picked up by Eastern dealers at 17 to 18 cents for eight-months' and 20 to 22 cents for twelve-months', the scoured cost being respectively 55 and 60 cents.

The situation in the fleece wool sections continues to be the despair of buyers. Banking on the probability that manufacturers must have the stronger fleece wools to mix with the Australian Merinos, and the further fact that the New Zealand crossbreds will be entirely lacking this year, growers of medium fleeces have put prices

on their new clip wools that Eastern buyers have been extremely reluctant to pay. Most of the Ohio medium clips are now out of the hands of the growers, and consequently trading is mainly on the basis of delivery on the cars. Latest quotation in this position was 34 cents, making the clean cost delivered here fully up to the level of the best 70s Australians.

Fine fleeces have been going slowly in the country, as growers are independent, and in many cases are demanding as much for their fine unwashed wools, as medium clips have brought. Some lots are being picked up at around 25 to 27 cents but most growers are asking more. In this market, the remainder of the old clip was cleaned up at 33½ cents for fine washed Delaine and 28½ cents for fine unwashed Delaine, though these figures cannot be considered fairly indicative of the actual value of the new clip wools. New wools are arriving steadily, and good lines will be available shortly. They will be opened as rapidly as possible, but buyers who are usually large consumers of such wools are this year showing a surprising indifference to them.

Pulled wools are strengthening slowly, considerable speculative buying going on among dealers on the probability that large orders for army goods will shortly be placed in this country. Latest sales of choice Eastern B supers have been made at 65 cents, the current quotation being 60 to 65 cents, with some holders asking more. B supers are now all in sight for the season, and no more will be available until fall. Most of the recent trading has been among dealers, and this is likely to continue for the present. The best wools are going into strong hands, and fine pulled wools are already scarce. A supers are quoted at 63 to 66 cents for Eastern and 65 to 70 cents for extras and fine A supers. Chicago pulled wools are quiet, though a good-sized lot of fine A super is reported to have recently changed hands at 63 cents. Chicago A supers are quotable at 60 to 63 cents and B supers at 58 to 60 cents. Combing pulled wools

are largely nominal, in the lack of actual stocks offering, though a little fine combing stock is available at 65 to 68 cents. Other grades are out of stock, and quotations are nominal.

Old wools are cleaning up rapidly in Australian markets, though the offerings at the recent Sydney sales have been mainly inferior wools with few lots suitable for America. A sale will be held at Brisbane, July 6, 7 and 8, with offerings of 50,000 bales, mainly new clip wools.

Receipts of foreign wools have fallen off again, the total for the month being 37,182,138 pounds less than in May. Total receipts for the month were 31,518,910 pounds, including 17,913,388 pounds domestic and 13,605,522 pounds foreign. This compares with a total for June, 1914, of 42,510,731 pounds, of which 29,619,014 pounds were domestic and 12,891,717 pounds foreign. From January 1, to June 30, 1915, inclusive, total receipts were 232,126,277 pounds, including 70,961,437 pounds domestic and 161,164,840 pounds foreign. For the same period in 1914, total receipts were 194,345,454 pounds, of which 83,729,116 pounds were domestic and 110,616,338 pounds foreign.

Total shipments for June were 25,197,616 pounds, compared with 22,620,201 pounds for June, 1914. From Jan. 1 to June 30, 1915, total shipments were 133,078,505 pounds, compared with 150,683,778 pounds for the same period in 1914.

SHEEPMEN CAN DESTROY COYOTES

Some time ago the coyotes got so bad in our section that it was impossible to herd the sheep. Every little bunch that was cut off, or got too far from the main band, was soon destroyed. We killed three old ewes, and put about an ounce of strychnine in each carcass and left them on the range. These carcasses were eaten and we found 22 coyotes and one cat lying near them. No doubt others were killed that we did not find.

BUSHNELL BROTHERS,
Utah.

IDAHO BOUNTY LAW.

Be It Enacted by the Legislature of the State of Idaho:

Section 1. That Section 1197 of the Revised Codes of Idaho read as follows:

Sec. 1197. It is hereby made the duty of the live stock sanitary board to exercise a general supervision over the killing and destruction of wolves, coyotes, wild-cats, bears and such other wild animals as are in the habit of preying upon and destroying sheep, calves, colts, pigs, poultry, and other domestic animals and fowls and wild game, and to devise and put in operation such methods and means as will best secure and obtain the object of exterminating such wild, destructive and pestiferous animals.

Sec. 2. For the purpose of encouraging the destruction of coyotes, lynx, wild-cats, bears, wolves, cougars or mountain lions, the following bounties shall hereafter be paid by the State of Idaho, in the manner hereinafter provided, viz: For each coyote, lynx and wild-cat destroyed, two dollars and fifty cents; for each bear or wolf, ten dollars; and for each cougar or mountain lion, twenty-five dollars.

Sec. 3. For the purpose of defraying a portion of the expenses necessarily to be incurred under this act, the board of county commissioners of the several counties in this state, at the time of the annual levy of taxes, shall levy a special tax of three mills on the dollar of the assessed valuation of all sheep, one mill on the dollar of the assessed valuation of all cattle; one mill on the dollar of the assessed valuation of all hogs; and one-half mill on the dollar of the assessed valuation of all horses, within their respective counties; which shall be collected and remitted to the State Treasurer at the same time and in the same manner as other taxes, and kept in a separate fund. The creation of this fund is not to be construed as repealing any other act which has been or may hereafter be enacted to provide a Predatory Animal Fund, but is in addition thereto.

Sec. 4. The live stock sanitary

board shall appoint in each county an inspector or inspectors, to be known as "Predatory Animal Inspectors," and any person who shall desire to obtain the bounty herein provided for, shall present to one of said inspectors the entire skin of each animal, with all paws attached thereto and which said skin shall also include, none of which shall be detached, the skin of the head with both ears, upper and lower lips, and said skin or skins shall be accompanied by an affidavit stating that the animal or animals from which the skin or skins were taken, were killed by the affiant in the State of Idaho, and that said animal or animals were killed on or after the first day of March, 1915. The said inspector to whom said skin or skins are presented, shall cut off or detach therefrom the four paws of the

Sec. 7. That Section 1202 of the Revised Codes of Idaho be amended to read as follows:

Sec. 1202. All bills for expenses and bounties under the provisions of this article shall be certified by the president and secretary of the live stock sanitary board to the board of examiners, and when allowed by that board shall be paid by warrants drawn on the Predatory Animal Fund in the State Treasury.

Sec. 8. That Section 1204 of the Revised Codes of Idaho be amended to read as follows:

Sec. 1204. Any and all sums of money whatsoever, that have been or may be appropriated by the legislature, or that shall be received by the live stock sanitary board for the purpose of carrying out the provisions of



A GROUP OF J. K. MADSEN'S RAMS, MT. PLEASANT, UTAH.

same and mail them, together with the aforesaid affidavit, to the State Veterinarian at Boise, Idaho, the postage or expressage for the same to be paid for by the person demanding the bounty therefor.

Sec. 5. Any person who shall make any false affidavit for the purpose of obtaining said bounty, shall, upon conviction thereof, be punished by a fine of not less than one hundred dollars, nor more than five hundred dollars; or by imprisonment in the county jail of not less than thirty days nor more than six months.

Sec. 6. The live stock sanitary board shall provide each inspector appointed by them with the necessary blanks for the purpose of carrying into effect the provisions of this act.

this article, shall be forwarded or paid to the State Treasurer, who shall receipt for the same in duplicate, one to be given to the live stock sanitary board, and the other to the State Auditor, and the same when received, shall be credited to the Predatory Animal Fund, and be paid out as provided in this act.

Sec. 9. That Sections 1198, 1199 and 1200 of the Revised Codes of Idaho are hereby repealed.

All acts and parts of acts in conflict with this act, are hereby repealed.

Read the entries for the Ram Sale that appear on page 4 of this issue. Many of the best American flocks are represented.

CHARGE FOR DISINFECTING STOCK CARS

Under the federal regulation and also under the regulations issued by some states all cars which carry livestock from some states to another must have been disinfected before loading. The railroads of the United States have now filed tariffs providing for a charge of \$2.50 for disinfecting single decks and \$4.00 for disinfecting double deck cars. These charges are outrageously high, as the cost to the railroads for disinfecting single deck cars is about 30 cents and about 40 cents in the case of double deck cars. When these tariffs were filed, the National Wool Growers Association appealed to the Interstate Commerce Commission to suspend them in so far as they related to interstate shipments, but the Commission has not yet granted the request. In order to relieve our shippers of this burden of \$4.00 for disinfecting each car, the National Wool Growers Association sent the following telegram to the chief of the United States Bureau of Animal Industry: "The railroads are now charging our shippers on all sheep to market four dollars for disinfecting every double deck car. They hold that cars containing sheep for immediate slaughter need not be disinfected but no one wants to bill his lambs that way as that places the packer in full charge of the feeder end. Do you understand that sheep from these western states that go to South Omaha and other markets must move in cleaned and disinfected cars? If such is the case, it will cost our sheepmen \$250,000.00 this year. Please wire."

In reply to the above telegram, we have the following message, which indicates that an order will soon be issued making disinfection of cars for interstate shipments unnecessary: "Order two three three requiring cleaning and disinfection of cars carrying stockers and feeders on account of danger of foot and mouth disease will probably be annulled soon, as conditions regarding disease are favorable."

(Signed) A. D. MELVIN."

This question of disinfecting stock cars was presented to the Montana State Railway Commission by the railroads who asked to be allowed to make a charge for disinfecting. We publish herewith a memorandum of the Montana Railway Commission's finding in this matter:

"The Northern Pacific, Great Northern, Chicago, Milwaukee & St. Paul Railway Companies, and the Chicago, Burlington & Quincy Railroad Company made application to the commission for authority to publish tariffs providing that the cost of disinfecting stock cars, yards or pens would be assessed against the shipper.

"The question was taken under consideration, and it was found that while the Montana statutes prohibited such a charge being made against shipments of sheep, no exemption had been made in regard to other kinds of livestock, and although the Northern Pacific and Great Northern Railway Companies have had in effect heretofore a tariff regulation providing that the cost of disinfecting must be borne by the shipper, on interstate business, no attempt has been made to have it apply locally in Montana.

"The interstate application referred to above named rates of \$1.50 for disinfecting single deck cars; \$2.50 for double decks or yards, when such disinfecting was necessary on account of Federal government regulations. The proposed amendment now sought to be put into effect increases these rates to \$2.50 for single deck cars, and \$4.00 for double decks or stockyards, when the disinfecting is made necessary by Federal, State, County or Municipal requirements.

"After full consideration of the subject, the Commission declined to grant the authority requested, taking the view that it was not the duty of the public to cleanse the vehicle of transportation or the railway company's facilities, incidental to the performance of its duties as a common carrier. We see no more reason why the stockman should be expected or required to disinfect the cars than the passengers who might happen to occupy the same

coach with a traveler afflicted with a contagious disease. If a condition of this kind were discovered, the coach would immediately be set out and thoroughly fumigated, but we have never heard of an instance where the railway company called upon the other passengers to defray the expense, and as stated, the responsibility is in our opinion the same in both instances."

HUNTING COYOTES FROM AEROPLANE

Recently Fred Mills killed three coyotes and two bobcats while hunting in an aeroplane near Rosco, Calif. The idea of hunting coyotes with the aeroplane was conceived by Glen Martin of Los Angeles, and he took along with him Fred Mills, an expert shot. While sailing through the air two coyotes were seen stalking a flock of quail. The machine was slowed down and brought to within 300 feet of the coyotes, when they were easily shot. After alighting to secure the pelts, a third coyote was killed as was also two bobcats. The total time consumed by the expedition was only 1½ hours.

FIRST OREGON LAMB SHIPMENT

On June 25th the Malheur Livestock and Land Company of Skull Springs, Oregon, marketed in South Omaha a string of 5,899 lambs which weighed sixty-eight pounds and sold straight for \$9.90 bringing the owners \$6.75 per head gross. These were February lambs that had been lambled on alfalfa and cotton seed cake and were out of half blood ewes and sired by the best Hampshire rams. The weight of sixty-eight pounds for this number of lambs is exceptionally good when it is remembered the great distance that they went to market. This firm has been in the habit of contracting their lambs and have been losing considerable money thereby. This year they refused to contract and have made much profit as a result. Wool growers will please notice that these lambs were marketed on Friday, instead of the proverbial Monday and Tuesday.

The Production of Hot House Lambs

By HARRY C. OLSENG, Illinois Agriculturist.

THE production of "hot-house lambs" is a highly specialized class of sheep husbandry. It is no mean art, but rather one which will require skill, patience, and prompt business habits. It is an artificial production somewhat similar to the growing of greenhouse products, since the lambs are produced out of the normal season. These lambs are born in late fall or early winter and are marketed from January 1 to Easter with a few available for the Christmas trade. They are marketed as prime young lambs about ten weeks old, weighing generally from fifty to seventy pounds, on the market. The lambs are sold mostly to produce commission firms, high class hotels, restaurants, clubs, and the like, though seldom to large wholesale markets.

The natural time for ewes to lamb is in the spring. The main consideration, therefore, lies in the selection of ewes, which will drop their lambs in late fall or early winter. The breed of ewes, which seems to meet this condition best and which is most widely used, is the pure-bred or grade Dorset Horned. The ewes of this breed are especially known for their excellent milking qualities and for their early lambing habits. Other first class producers are the Rambouillet, Tunis, and Delaine ewes. In an experiment carried on for eight seasons during which time 216 "hothouse lambs" were produced, Cornell Station concluded that the grade or pure-bred Dorset Horned ewes excelled other breeds for this purpose.

Stress must be laid upon the activity of the breeding qualities of both the rams and the ewes. The highest possible state of health and thrift must be secured. They must be well fed but not over-fed. The rams should be young, active, vigorous, and medium in flesh, showing strong constitution and an abundance of quality. The ewes should be choice heavy milking mothers, in order that the lambs

may have an abundance of feed for rapid and continuous growth and gains. It is better to select middle aged ewes, rather than those too old or too young. Cornell Station used three different breeds of rams upon their ewes, a Dorset Horned, a Hampshire and a Southdown. Little difference, if any, was shown in favor of any one of these breeds of rams, since the lambs were produced for market. Excellent results have been obtained

good grass pasture, sufficient shade, and plenty of fresh water. Salt should always be before them.

In most cases, if the building has a good southern exposure, no artificial heat is necessary. The building should be on a high dry spot and so constituted as to exclude all possible drafts and dampness. Windows should be so arranged that sunlight can enter the great part of the day. The half-monitor type of shed with a southern exposure and with a hay mow above is found to be a convenient building for both light and warmth. The building should be well built but it need not be elaborate or expensive. Creeps are used to advantage in feeding lambs. A creep consists of a small pen alongside the regular pen, and separated by vertical bars placed at such a distance apart as to exclude the ewes from entering.

As the period of gestation is about 150 days, ewes bred in May or June will drop their lambs some time between October and December. Strong ewes, which are not too fat generally have no trouble in lambing, but it is well to give them careful attention. Pens should be well ventilated and well bedded. Care should be taken to prevent lambs from becoming chilled. A lamb up on its feet, dry, and sucking will take care of itself, if the temperature is not below twenty degrees Fahrenheit. When the lambs are strong several ewes with their lambs may be put together.

The ewes at their period should be yielding an abundance of milk, since the lamb's feed for the first six or eight weeks is primarily its mother's milk. To stimulate this milk production grain and succulent feeds must be fed. A good ration for ewes is equal parts of bran and oats with roots and clover hay. Ewes should be fed this ration in increasing amounts until they are on full feed, which takes about a month. Mother's milk will do wonders to make a little



A 52 POUND CARCASS OF A HOT HOUSE LAMB PREPARED FOR SHIPMENT AND SOLD FOR \$10.00.

when the Dorset Horned ewes were crossed with a Down bred ram. The Oxford Down used in this cross produced a large, growthy, early maturing, and easily fattened lamb.

Ewes to be in proper condition for mating should be gaining in weight, rather than losing or at a sandstill. The summer care of ewes is rather a simple process. There are but three main things to consider, namely, a

weak lamb strong and healthy. In about ten to fourteen days the lamb should be taught to eat grain. A good grain ration consists of three parts of cracked corn, two parts of ground oats, one part of bran and one part of oil-meal. In about a month's time whole grain may be fed. Sometimes a little sugar is sprinkled over the grain to encourage the lambs to eat it. Lambs at first nibble at the grain mixture, but they soon learn to eat it and teach the others. They should also have access to a little alfalfa and silage. Plenty of good clean feed should be before them at all times, in order that they may grow constantly. It must be remembered that the production of fat lambs at any cost is the sole purpose of this production. Each day the troughs should be cleaned and any feed left in them may be fed to the ewes. A self-feeder finds no place in feeding hothouse lambs.

The weight at which lambs are sold will depend upon the demand of the market. Lambs at birth weigh from 8 to 10 pounds and they average a daily gain of from 0.3 to 0.6 pounds. The selection of a suitable market is one of the main factors to be considered in hothouse lamb production. Circular letters advertising the product may put the producer in touch with fashionable hotels, restaurants, and clubs, who pay fancy prices for prime young lambs. If the lambs are not disposed of by Easter their value decreases, but at this time they may be sold to hospitals or lastly to the large wholesale markets for a good price. Purdue Station sold lambs as high as \$12.95 as an average yearly price per lamb. They estimated the cost of feed for both ewe and lamb per year to be \$5.63, and a yearly profit over cost of feed to be \$9.47 per ewe, excluding cost of labor. The Illinois Station sold two lambs at \$11.00 each, and two at \$9.00 each to the Blackstone Hotel in Chicago. They found the average cost of production for the last two lambs to be \$1.75. The lambs weighed 40 pounds at 72 days of age.

The lambs are sold with pelt on or pelt off, according to the demands of

the buyer. Since the carcass is a fancy product stress must be laid upon its appearance and method of dressing. In general it may be said that demand, quality, condition, and weight are factors which determine the price of the carcass.

In conclusion let it be remembered that to be a successful producer of "hothouse lambs," one must be a lover of sheep and must watch all details of the business with extreme care and interest at all times. It is a business which requires skill and patience. The object of the business is to produce fat lambs at any cost. If handled rightly both pleasure and a large profit may be had.

EARLY IDAHO LAMBS HEAVY.

A notable June market performance was that of LeMoynes Brothers of Wendell, Idaho, who on the 26th of that month sold at Chicago, 1968 head of 78-pound spring lambs at \$10.60 per cwt.

This is the record weight for western grass lambs in June. The shipment attracted much attention. The lambs were grade Hampshires and were dropped early in February. They were the earliest lambs from Idaho in trade history and their superiority was due to breeding and care. The incident indicates what may be accomplished by up-to-date methods.

J. E. P.

MANY LAMBS CONTRACTED.

In all the range states large numbers of lambs, both feeders and fat lambs have already been contracted for fall delivery. Men who have been scouting around advise us that in Wyoming, Idaho, Utah and Nevada probably a million lambs are already contracted.

Prices have ranged from 5 3-4 cents per pound to 6½ cents per pound and from \$4.00 per head up to \$5.25 per head. As we go to press, buyers are scouting around the range country, and the demand for feeders is so great that an advance in prices is predicted.

ENDORSES RAM SALE.

I am pleased to see the strong entries you have for your Ram Sale in September. The average grower does not realize that the buck is 75 per cent of the business. Ask the LeMoynes, who put 78-pound lambs on the market the end of June, what bucks they are using. Ask O. F. Bacon, Barlow Ferguson or the Goodings. Is it the grade buck or the thoroughbred that is giving them their reputation and Idaho the honor of being the greatest lamb state in the Union.

There are a few names we conjure with in Idaho, some Idaho men, some not, Butterfield and Knollin and Taylor and Allen. These men have devoted their lifetime to the improving of our mutton breeds and whether they raise a Hampshire or a Shropshire, a Cotswold or a Rabouillet the best price they get is none too high for the class of stuff they are raising. We cannot all be thoroughbred raisers; it has to come naturally to the successful breeder, but we can all improve our flocks and increase our income by patronizing them and while none of them are flying the S. O. S. signal as our southern friends did last fall when they originated the "Buy a Bale" slogan, for our own interests, and as an appreciation of their efforts let's "Buy a Buck" and many of them and make the Ram Sale a great success.

Buy a \$50.00 buck and be good to him. Buy a \$500.00 one and be better to him. His ancestors were not used to roughing it on ranges like some of us have got. In the breeding season take his feed to him, do not expect to work and rustle a bite here and there. Take him out of the band in the day time, feed him well and water him well. Treat him as his forefathers have been treated on the grassy downs of old England where if they do not raise better sheep than we do, they are infinitely better to them. Let us "Buy a Buck" and buy a good one.

HUGH SPROAT,
President, Idaho Wool Growers.

ONE DIPPING KILLS ALL TICKS

Prof. Swingle, in Wyoming State Experiment Station Bulletin, entitled "Eradication of the Tick," says:

"I have seen large flocks of sheep practically if not entirely freed from ticks by a yearly dipping in Cooper Powder Dip."

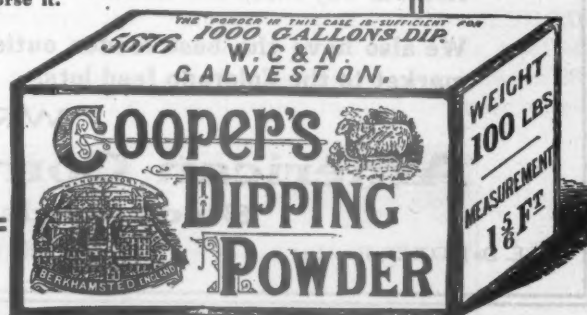
Use Cooper's Powder Dip—one dipping will kill the ticks—and prevent fresh attacks. The protection against fresh attack is worth the cost of the dipping.

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Montana Branch: C. F. Wiggs, Manager, Billings



1915 Market Prospects

THE HIGH RECORD sale of 9.65, made by us on range lambs last season, will look low in comparison to this year's sales, for prospects are the best ever known.

OUR SALES on May 26th this year, of "wool" lambs in Chicago at \$11.85 and "shorn" lambs at South Omaha at \$10.15 are the highest to that date on their classes, but may not stand for the season.

GROWERS SHOULD REALIZE how favorable are the prospects for higher prices on all classes than ever before—the season through,—and reap the full benefits by direct marketing.

THE EFFICIENCY of our "marketing service" is an open book which may be read from the pages of "satisfied customers," whose testimony speaks more eloquently than any words we might utter.

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We also have the best feeder outlet in the United States through the Denver market to the Colorado feed lots.

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Wyoming Experiment Station Bulletin 93

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Montana Branch, **C. F. WIGGS**, Manager, Billings, Montana

Our English Wool Letter

From Our Special Correspondent

IT is not generally realized that for its size England is the finest wool producing country in the world. The number of sheep in the British Isles has been gradually declining for a few years, but it is still around 29,000,000. The total weight of wool produced varies somewhere between 122,000,000 and 123,000,000 pounds.

We thought it of sufficient interest to go into the value of the wool grown in England each year, but it is rather a difficult matter to decide this, seeing that the price basis for this season has hardly yet been fixed. A few sales took place a good week ago, but during this week several large fixtures have been

values, are showing no inclination to exceed Bradford. This has been done on many past occasions, and buyers have had no little difficulty in turning over their dear purchases at a profit. Private buying between merchants and farmers has been going on quietly, and the latter have shown some disposition to accept prices offering. No higher level than corresponds with Bradford rates has been yet reached, and farmers so far seem to be content with the handsome prices they have secured, without screwing out of the buyer the last six pence per tod.

Because the English clip weighs about 122,000,000 pounds, we cannot

42 cents per pound. Whether there are two pounds of wool at 38 cents in proportion of every one pound at 42c we cannot say, and the exact proportions of each style of wool grown in the country are not known by any man. Of half-bred wools there will be probably about 5,000,000 pounds grown, while of the Lincoln style there will probably be between 12,000,000 and 13,000,000 pounds. Leicesters and similar quality wools amount to about 9,000,000 pounds. In Ireland we estimate that about 21,000,000 or 22,000,000 pounds are grown every year, most of it today varying in value between 38 and 41 cents. In all of the above prices



COTSWOLD LAMBS BRED BY J. R. ALLEN & BROS., DRAPER, UTAH

held, and buyers have now formed some fairly definite ideas as to what wool values will be during the next few weeks in the country. The wool is good, fully equal to that grown during recent years, this no doubt being due in large measure to an abundance of feed following on last winter's rain, and the good dry weather which has come when sheep wanted it, i.e., from spring onwards. So far the country sales have not gone any dearer than was expected in Bradford. There has been much discussion as to how values will move, and dealers, though they know that they must in any case pay 10 to 12 cents per pound above last summer's

multiply it by a certain price per pound and say that is the value of the clip, for the simple fact that the average price per pound of the English wool clip is not known. In that 122,000,000 pounds there are more styles of wool than any other country in the world produces. The British Isles contains more pure breeds of sheep than any other country, and the question of the various styles of wool and their values needs to be gone into before even a rough estimate of the value of the clip can be secured. Of one kind and another there are about 21,000,000 pounds of Down wool grown in England, and present Bradford rates vary from 38 to

it must be understood that the value is given delivered in the chief consuming center—Bradford.

Turning first to Down wools we estimate that the Down clip itself is worth about \$1,736,400. It must be understood that this is only an estimate, but it is as near the mark as can be reasonably expected. In past years much of our Down and fine half-bred wool has not been bought for Bradford topmaking purposes. The prices paid have not been calculated on the Bradford level, a great deal of the wool having been taken for the American trade. Big weights of fleeces and matchings of these qualities have been shipped to

America every year, and in view of the fact that American competition cannot be looked for, and also that English dealers who buy the wool cannot hope to turn it over to America this year, it would not be expected that values should jump so much as was at one time thought probable. The wools are excellently suited for hosiery and khaki purposes, and there will be a big run on them by merchants and topmakers who are catering for this trade. The grower will certainly not suffer, and country auctioneers can rely on an excellent demand for all they have to offer.

Taking Irish wools next, we must say that prospects point to a brisk demand for these. It is impossible to buy any in Bradford today, but dealers who specialize in these wools all seem to be anxious to secure stocks, either because they have in some cases big contracts on hand which they must deliver, or because they foresee a splendid opening for these wools later on. Our own Leicester, Ripon and Nottingham wools are also sure of a good competition in view of being used for similar purposes, but as things are at present mountain sorts bulking around 32's quality will probably not be so keenly sought after unless America buys freely. The demand for them in Bradford and for tops made from them is distinctly slow, but it does not mean that any reduction in price can be secured. There is a feeling that army demands from Great Britain, France, Italy, Servia and probably Russia will absorb all the wool that the English trade can lay hands on, and once again coarse qualities will enjoy a "run."

At today's prices, then, we estimate the value of the English clip at close upon \$40,000,000.00. If prices appreciate at all, it may easily be that the value will rise to fully \$40,000,000, possibly beyond. Up to the present Lincoln hog wool, to take an example, has sold at about 38 cents per pound, but this is not nearly a record, it having been disposed of as much as 54 cents per pound in 1872. Bradford dealers do not want any approach to that price, at least not just now at the beginning

of a season, but happily it is not probable. It has been said that about \$15,000,000 more money will be received by the English firms this year for their wool than was the case last year. That wool is an article of prime necessity in European countries is to some extent proved by the fact that during every war for the last hundred years wool values have risen enormously, in common with other necessities of clothing and food. The war has been in progress quite ten months before the English farmer is beginning to feel the benefit of the increased wool values, but the higher prices he will receive this summer must not be taken to be all profit, seeing that owing to the shortage of labor his lambing has cost him dear in many cases, and the higher price of feed stuffs has likewise made the production of the wool a more expensive matter.

We give below a very useful table showing how leading descriptions of English wools have advanced compared with last clip time. The reader will see what effect the war has had upon the most favored descriptions of home grown fleece wools:

Description.	Cents. June, 1914.	Cents. June, 1915.
Lincoln wethers	24	36
Leicester wethers	24½	36
Selected Kent wethers.....	26	38
Cheviot wethers	26	38
Best Scotch Cross wethers..	22	28
Southdown ewes	31	42½
Pick Shropshire wethers....	30	42
Hampshire Down	2½	40

BRUSHERS COST TOO MUCH.

Packers have been buying goats with such avidity this season that in the timbered sections east of the Missouri River where large numbers of these animals are needed each summer for brush destroying purposes scarcity exists. A Wisconsin man who filed an order at Kansas City early in the season at what he considered a high price limit did not get a single car. Goats came fat from the Southwest and packers had a place to put the meat. Pelts were also worth big money.

Last fall fat goats were at a high level and repetition of that market this

year is probable. Fattening goats on brush, however, is one of the things that "can't be did." To get good brush action, stock must be kept down close to the starvation point.

The history of fall goat trade is that spring prices have not been realized, but scarcity of sheep promises to give this class of stock an added value that may warrant feeding it in the corn-belt.

J. E. P.

FROM SODA SPRINGS IDAHO.

I have never seen such fine feed as we have now, all the lambs I have seen are as fat as butter.

Market conditions are very promising. I see, however, one bad feature; many of the early lamb raisers are planning to make a rush for the high prices. It is morally certain if they all go to market at once there will be a slippery slide, well greased, awaiting them. Two dollars per cwt. can be sliced off the present market value, without causing the buyer any remorse of conscience. They have had the hard end of the deal for several months, and are anxiously waiting to pay the salesmen back in some of their own coin. The early lambs have from July 1st to September 1st to clear, sixty days without anything to bother them. String them out, and the entire crop will sell as high as the proverbial cat's back; ship all at once, and they will get "swatted." If there are 400,000 early lambs in the west, put them in for eight weeks, 50,000 a week, and string them out all the week, not all on Monday and Tuesday.

A. J. KNOLLIN, Idaho.

EXPORT WOOLEN GOODS.

By reason of war our exports of manufactures of wool are growing very rapidly. In the ten months ending with April of last year our total exports of manufactures of wool amounted to \$3,931,654.00. This year for the same period the exports amount to \$22,483,070.00. These exports of wool goods are bound to have a good effect on the wool market.

Suggestions to the Beginner in Sheep Feeding

By PROF. W. C. COFFEY, Illinois

IF numerous inquiries for breeder and feeder sheep are true indicators, the corn belt is about to awaken from its deep slumber of indifference toward sheep. Evidently farmers have heard of high prices for mutton and wool and of the general scarcity of ovine stock. These facts together with the further fact that the corn belt country is green with a rampant growth, make the average farmer anxious to possess a fraction of the country's sheep population.

But "all is not gold that glitters," and so it is now with respect to the sheep business. It is not necessary to say this to the seasoned sheepman, but perhaps the man who is about to start into his first experience with sheep should have some things brought to his attention. For when sheep are selling high and when feeders have secured a wide margin of profit, as many have done this year, the air is full of overwrought statements. For this particular reason, we submit a few comments for those who are thinking of feeding western sheep or lambs for the first time.

Before any corn belt farmer starts to feed western sheep or lambs, he should fully realize that the object of the feeding operation is to convert animals in thin flesh into a finished product for slaughter. That is, feeding, as here considered, is a fattening process. Apparently, no one would have any different idea about it, but each year thousands of western sheep and lambs are shipped from corn belt farms to the open markets in unfinished condition. In fact, many of these sheep and lambs have to be resold as feeders. Although unfortunate or accidental circumstances may interfere with developing a proper finish in numerous instances, it is nevertheless true that many are not

impressed as much by the importance of finish as they should be. They are correctly classified when they are called "speculative feeders," for they seem to be impressed solely by the "purchase" and "sell" part of the game.

He who contemplates the feeding of either sheep or lambs should make a careful inventory of his equipment. Equipment as here used includes everything the animals will use, feeds as well as shelter, etc.

First of all, he should estimate whether he has enough of the proper kind of feed, both grain and hay to make

sult in loss because the product is forced on to the market in underfinished condition.

Occasionally attempts are made to fatten on grass and roughages alone. In the region under consideration, such attempts are rarely successful, for in fall and winter some grain along with the roughage is usually necessary if sheep and lambs are to be made fat.

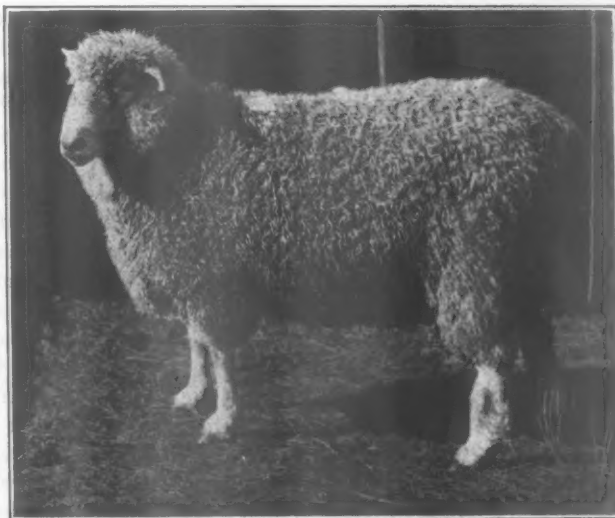
Suitable feeding grounds and adequate shelter are also features of equipment which the person who is thinking of feeding sheep or lambs should think about. Experienced feeders always emphasize the advantage to

be gained by having dry, well drained feeding grounds. Sheep dislike mud. A very successful feeder once said to the writer: "Before I would let a band of lambs wade through a muddy gateway, I would make a passage-way for them by cutting out a section of fence where it is not muddy."

Opinions vary somewhat as to the value of shelter for feeder sheep and lambs in the corn belt. No shelter whatever is advocated by a few; some think the feeding process more profitable if it is conducted entirely under shelter, while the majority take

the intermediate view, namely, that enough shelter should be provided to protect the animals from storms, but that in fair weather, they should be allowed to run in lots or in fields.

Those who believe shelter is not essential to successful feeding, usually have a natural protection, such as a woods-lot or hills, to which the sheep or lambs may go in storm periods. Thus favored, they withstand all but the worst storms without going back in condition, and many a band of westerns has been made fat on corn belt farms without having had access to shelter. In the writer's opinion, how-



LINCOLN STUD RAM OF LAIDLAW & LINDSAY, MULDOON, IDAHO

his animals fat. Or, in case the supply of feed on hand is not adequate, he should know definitely whether he can purchase it at a price that will justify its use in the feeding process. Lack of feed is one of the reasons often given for returning sheep and lambs to the market in unfinished condition. Too many farmer feeders in the corn belt attempt to feed when they know that they do not have enough of the proper kind of roughage. What they have is consumed before their sheep or lambs are fat. A suitable ration cannot be made from concentrates alone, hence the feeding operation must re-

ever, shelter is nearly always needed. There are seasons when even persons who have the best of natural protection, find it difficult to handle their sheep or lambs because of frequent and long storm periods. A few years ago there was a saying common on the Chicago market to the effect that Iowa and Illinois would start shipping half fat ovine stock at the first snow fall. That is, many feeders in these states had no other place than muddy stalk fields for their sheep and lambs, hence protracted storm periods forced them onto the market. It was common, too, to read in the early winter market reports of western lambs from the stalk fields of these states as reaching the market in lower condition than when they were sold out as feeders. Perhaps no stronger statement than the above can be made to emphasize the need of shelter for feeder sheep and lambs in regions where climatic conditions are similar to those in the corn belt.

In a somewhat different way than that already discussed, shelter is a necessity. Although sheep or lambs may gather a great deal of their feed from such places as stubble and stalk fields, it is seldom that they get it all from such source. Hence, there is need of some suitable place to give them harvested feeds. As we know, these feeds are costly and must be fed so as to eliminate waste as much as possible. In a variable climate a considerable part of them will be wasted if they are not fed under shelter.

The beginner in sheep feeding should clearly understand that there is a hazard in the business. That is, both risk and chance are involved in it to a certain extent. Risk arises from the possibility of deaths during the feeding period and of low gains for the feed that is consumed. Chance arises from the possibility of the wrong relation between cost and selling prices. If the cost price is high and the selling price low, then, of course, the speculative feature of the business is not attractive, but it is very attractive if prices are the other way about.

One year with another sheep or lamb

feeding yields moderate profits. Except in the worst of years, there are those who make it pay. And except in the best of years there are those who do not make it pay. The latter are a drag to the sheep industry in general. For example, they are the ones who almost wear sheep or lambs out by causing them to be passed through the market so many times. When lambs are sent from the range to the stalk fields of the corn belt and from thence to the big red barns of Michigan, each time being passed over the counter of the open market, five freight, five commission and three yardage charges are collected on them before they land in the coolers of Buffalo. Surely this is economic waste!

But it takes no special intuitive knowledge to make one able to feed sheep successfully. A careful survey of one's equipment for feeding, however, is essential and one should have this equipment in mind when buying. After this is done, close attention to details should make the feeding operation a success, for watching the small details often makes the difference between loss and profit.

IN NORTHERN MONTANA.

Bountiful rains during June have been very beneficial to the present (very limited) sheep range, in northern Montana, and sheep and wool are in the "pink of condition" in consequence.

The winter being the mildest in years, wool now being shorn shows a long, strong staple and free from dirt.

The weather during lambing season proved very favorable, and the percentage of lambs much higher than the average.

A few desirable lots of two and three-year ewes have changed hands at \$6.00, while six-year-old ewes are offered at \$3.50 to \$4.00, for delivery after weaning time, in October.

No wool sales have been made since early in June, and but two sales at that time, when 27c and 28c was the selling price.

Sealed bid sales will open here the week of July 5th, and as the bulk of

the wool is still unsold, a larger amount than usual, will likely be offered, but from the fact that woolgrowers generally are asking strong prices for their clips, it seems quite likely that but a small amount will change hands at the sales, and that more wool will be shipped on consignment, than any time during the past ten years.

Regreting inability to gather but little news with reference to sheep and wool in this section, now largely occupied by homeseekers.

F. I. LONG,
Great Falls, Mont.

RATE ADVANCE AGAIN SUSPENDED

Readers of this paper will recall that the Western railroads filed new tariffs effective April 1, 1914, advancing the rate on sheep from Western shipping points to the Chicago and Missouri River markets. On the application of the American National Livestock Association and the National Wool Growers Association and certain other organizations, the advances, ranging from \$4.40 per car up to \$13.00 per car were suspended by the Interstate Commerce Commission, pending a hearing. The case was heard at Sioux Falls, South Dakota, and at Denver, Colorado, last year, but the Commission has not as yet rendered its decision, and until it does the advance cannot become effective. The proposed rates were first suspended from April 1 to July 31, 1914; then they were suspended until January 31, 1915; they were again suspended until June 30, 1915, and now the advance has been suspended until September 1 of this year. We anticipate that on September 1, the advance will be again suspended until December 31, about which date we anticipate a decision from the Commission. If the decision should then be unfavorable, which we do not anticipate, these two livestock associations will have saved the shipments of sheep and cattle about \$400,000 per year on the shipments of 1914 and 1915.

"QUALITY SALT"

NATURALLY PURE

From the **Salt Beds at Salduro, Utah**

Sheep Salt——Cattle Salt——Ice Cream Salt

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CAPELL SALT COMPANY

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Utah's Only Exclusive Disinfectant Firm

Manufacturers of

CREO-SUL SHEEP DIP

(Non-Poisonous. Non-Corrosive)

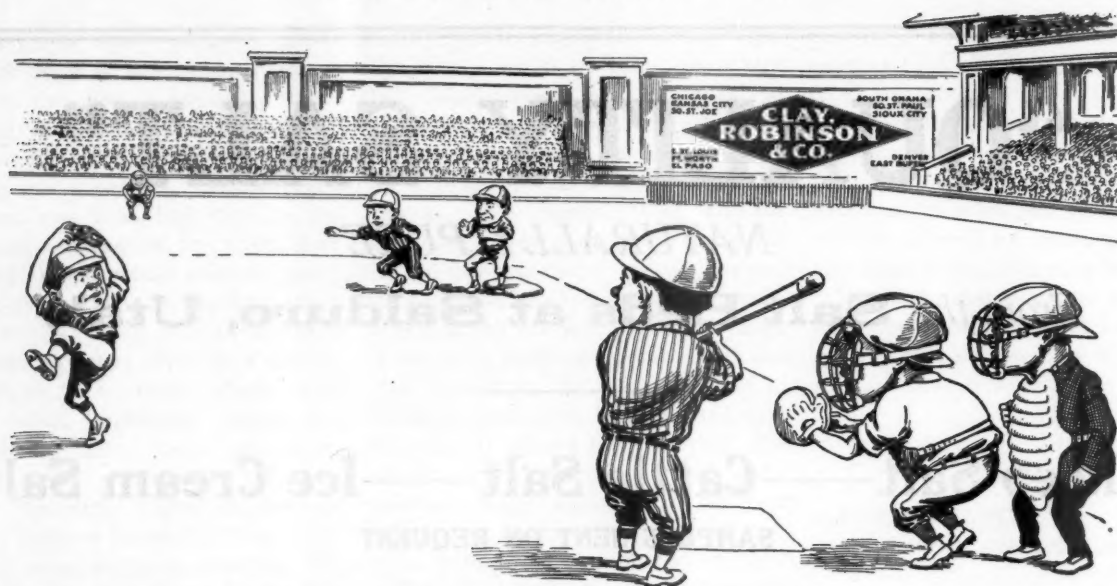
Recognized universally as the highest grade and guaranteed to instantly kill and destroy all ticks, and a thorough disinfectant for all stock. Dilute one part to two hundred parts water. We are located in Salt Lake and thoroughly equipped to take care of your demands whether small or large. All mail orders will receive our prompt attention. Give us a trial and you will never change. Your satisfaction guaranteed or our loss.

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The great national game and the live stock commission business are alike in one respect. It is Team Work, not Dream Work or Scheme Work, that wins.

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Therefore we have always placed great emphasis upon Team Work, in other words, co-operative effort. Every person connected with our organization, from the heads of the firm down to the office boys, knows that he is expected to put his very best efforts into the job of pleasing the customer, and they all do it.

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The National Wool Grower

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Edited by the Secretary

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CABLE FROM LONDON WOOL AUCTION

The London wool auction opened on June 29th, and we have the following cable from the National Wool Warehouse and Storage Company referring to wool values as reported for the first few days of the present London sale. The cable follows: "London continues very strong. Shafted Queensland Merinos shrinking 44 per cent are bringing 39 cents in the grease. Keenest possible demand for good Merinos at this price which is equivalent to a scoured cost in Boston of about 75 cents. Combed wool in Bradford is now quoted at 90 cents as against 66 cents a few weeks ago and Americans are now selling combed wool in London. London can be considered fully 10 per cent higher on good Merinos and 7½ per cent higher on inferior qualities.

"At Brisbane, Australia, yesterday Merinos advanced 7½ per cent, Japan and Americans both buying freely. There is a world wide shortage of well grown Merinos and this will put this quality at a premium, while the war demand assures a strong market for medium wools."

THE RAM SALE.

Wool growers should not forget that the first annual ram sale to be held under the auspices of the National Wool Growers Association will occur at the Fair Grounds, Salt Lake City, Utah, September 7 and 8. This sale consists of stud rams and ewes to head regis-

tered flocks as well as a large number of range rams.

Some wool growers feel that the date is a little earlier than was necessary, but we take the position that a sale of this nature must necessarily occur early in the season in order to attract rams of the highest quality and in order to give the breeder who desires rams an opportunity to buy elsewhere should he not obtain what he desires at the Salt Lake Ram Sale.

We call attention to the consignments to be sent to this sale published in this issue of the National Wool Grower. On every consignment that is here listed, an entrance fee has been paid by the consignor as a guarantee that he will send the sheep listed to the sale. When the sheep appear on the sale grounds, the entrance fee will be refunded, but in the event they do not appear, the fee goes into the funds of the National Wool Growers Association. We felt that it was necessary to charge this entrance fee in order to guarantee to the men that come here to buy rams that we will have rams on the sale ground on the date advertised. We believe that practically every sheep and ram listed in this issue will be at this sale for the ram breeders recognize that this sale will be the greatest sheep show America has ever seen, and those who are sending sheep to the sale are doing so as much for the advertising they will get out of it as for the financial returns that it will bring to them.

Practically every sheep breeder to whom we have spoken about this sale has endorsed the movement very

highly. They all recognize it as a move in the right direction. Unless the information we have received is very far wrong, we will have a large attendance at the sale. Breeders should not miss this opportunity to compare the rams bred by one man with those bred by another. These sale sheep will not be fitted as they are for sheep shows, and, therefore, they will give the buyer a true index of what the different ram breeders are producing.

In addition to the sheep listed in this issue, a few additional ones will be on sale. We have prepared a catalog of the Ram Sale, which we will gladly mail upon request.

HEAVY LOSSES.

Not long ago a Utah wool grower said to us: "From the last of October until shearing time my loss of ewes was about 440 head out of 8,000."

This loss represents about 5½ per cent and yet it covers that period of the year when the loss is lightest. The heavy loss in ewes and the unavoidable loss comes at lambing time and ranges from 2 to 3 per cent. Recently we have discussed with many of the best sheepmen of the West this question of range losses. From these discussions we reach the conclusion that one year with another, the average loss in grown sheep is approximately 8 per cent. Some of this loss is due to poisonous plants, much to predatory wild animals and some of it to careless herding, but even in the best managed flocks we find that the loss is very great.

Everyone concedes that the loss in lambs is somewhere around 10 per cent. When one considers the loss in grown sheep plus the loss in lambs, we can readily see where most of the profits from the sheep industry are eaten up. In fact it is a wonder that an industry sustaining such continuous losses as these has been able to survive at all, and we would venture the prediction that no other industry could sustain such losses and go on.

We imagine that before the wool grower can expect to make very much

money these losses must be materially reduced. Of course the loss from wild animals can be eliminated in time, but it may require drastic legislation on the part of the states to accomplish this. We are of the opinion that this coyote question should be solved by the sheepman himself and that any man who uses the public domain should be forced by law to devote a certain portion of his income to the destruction of predatory wild animals. If free grass, such as it is, is not worth a little pains in destroying wild animals, then let us give the grass to someone who will think better of it. Many wool growers have solved their wild animal problems by destroying these plagues, but of course they cannot keep them destroyed because of the indolence of their neighbors who allow them to accumulate.

The herding system of handling sheep is a cause of very considerable losses. In fact we imagine that it is responsible for a large part of the present losses, but then the climate of these northwestern states makes it imperative that sheep should be herded at least eight months out of the twelve. However, there can be no doubt that in very many sections of the range states a system of pastures for use especially at lambing time would prove of material benefit in reducing losses. Even though our climate will not permit the use of pastures in general, yet much can be done to handle our sheep in a more intelligent manner. Those who have been reading the pages of this paper have before this been convinced that the old system of handling sheep that obtained from the time of Christ down until the Forest Service took up the blanket system of herding, was about as bad as any system could be.

Then we have frequently wondered how much loss was caused by the dog. Not by the predatory sheep killing dog that you read so much about in the East but by the kind, gentle shepherd that assists in handling every flock in the West. Intelligent sheepmen have said to us that the sheep herding dog caused as much loss as the coyote, and

while we do not grant that this is an exact statement of the fact, yet we do know that the majority of western sheep are dogged until there is little profit left in them.

Winter losses in states like Idaho and Oregon and in parts of other states, have been about eliminated by placing sheep on feed during the winter, but there still remains sections of the West where preparation for winter feeding would do much towards reducing losses, but this is no longer the most serious side of the situation.

We are rather hopeful about this question of losses for here and there all over the range states we are finding wool growers who are thinking about the matter. That is all that is necessary. The man who thinks will ultimately solve this problem for the man who does not think.

REDUCING FREIGHT RATES.

We explained in the last issue of this paper that the American National Live Stock Association and the National Wool Growers Association had brought a suit before the Interstate Commerce Commission to bring about a reduction in the rates on sheep and lambs from Idaho points to Los Angeles, California.

This case was heard by the Commission in Denver on June 14th, and a representative of the National Wool Growers Association was present to testify and help present the case. The present rates in existence from Idaho and Utah points westbound are very high, but there is a big lamb trade in California awaiting the time when reasonable freight rates will permit its movement. Even in the face of unreasonably high rates the California demand for lambs has increased enormously. It was testified to in the case before the commission that in 1909 about a dozen cars of Idaho sheep had gone to the Los Angeles market, while last year that market consumed just a little less than 400 cars of sheep from that territory. If reasonable rates can be established to Coast points we anticipate a material increase in the

consumption of mutton and lambs in those sections.

FINDERNE PRIDE

JOHANNA RUE

Now comes another champion. This time it is in the form of Finderne Pride Johanna Rue, a Holstein cow that has just produced 1,176½ pounds of butter fat equal to about 1,352 pounds of butter in one year. This is about sixty-seven pounds of butter fat more than the previous champion had produced. Dairy queens reign but a short period in these days for new records are being established with rapidity that seems incredible and impossible to livestock men who handle their stock in a hit and miss manner, such as is the case with most sheepmen.

Of course were it not for the advanced registry by which these great butter records are made under the supervision of agricultural colleges, it is probable that this new butter queen would have gone to the shambles early in life instead of reigning as the queen of butterdom.

Probably we have but two classes of animals that would respond to the intense prompting of an advanced registry, that is the dairy cow and the Merino sheep. By means of the advanced registry the dairy cow can be improved in quantity almost eternally. And, likewise, an advanced registry could be the means of making the Rambouillet breed of sheep, the only one of the Merino breeds that now retains importance in the West, the world's most useful animal. Everyone who knows the Rambouillet knows that its wool is about an inch and a half shorter than it ought to be and in many cases the quantity is deficient. Both length of staple and quantity of wool can be regulated and fixed by an advanced registry for Rambouillets under which disinterested parties would take charge of the shearing and publish the results.

Every western woolgrower can well afford to pay this Association \$5.00 per year.

NEVADA WOOL GRADED.

The question of better preparation of wool by wool growers of the West, became so important that we arranged with the National Wool Warehouse and Storage Company, this spring, to send experienced graders to our shearing plant at McGill, Nevada, where they were to grade our wool and pack it in the best condition possible for the market.

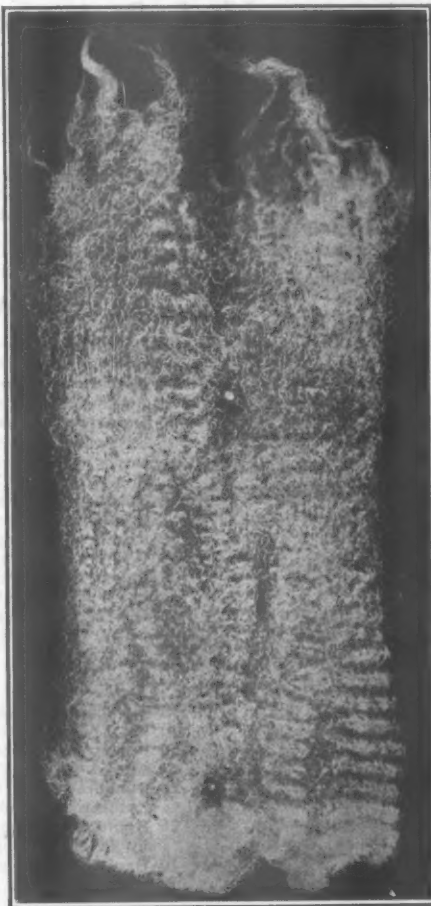
We had always shorn our sheep and had shipped the wool in bags as the common custom had been in the West, but had paid attention to having the work done according to the best methods used in this western country by shearing our ewes and wethers, black sheep, rams and lambs, separately and packing the wool of each of the above classes and marking the bags, showing the class to which they belonged. This seemed to be all we could do with our knowledge of the business, but we were aware that this was crude at best and believed that we were not doing the best that could be done for our business.

The common method of disposing of our wool in the range country has never appealed to us, as we have always been more or less ignorant of the true worth of our wool; so when the demand became so strong for better preparation of wools for market, we decided to try the experiment of grading the wool and at least get some real knowledge of the product we were annually offering for sale.

The method used in grading at our plant was not the one known as the Australian plan, but was simply to grade the wool into the different classes without separating the fleeces into various grades. The fleeces were spread upon a table made for that purpose, the tags and locks were carefully taken off the fleeces and were packed in a bale, each bale marked so as to represent what they were, either tags or locks, as the case might be. The fleeces were then rolled, but were not tied (as was the old custom), and placed into grades as follows: fine staple, fine clothing, half-blood staple,

half-blood clothing, three-eighths blood, quarter-blood, low quarter-blood and braid.

Black fleeces were packed separately. Lamb and ram fleeces were also graded and in the same manner as above stated, and packed in the same way. Each bale was marked so they could be easily identified, and each bale would be uniform, carrying the grade of wool represented.



WOOL FROM A CROSSBRED LINCOLN-RAMBOUILLET LAMB THAT SHEARED 12 3/4 LBS. IN THE GOVERNMENT FLOCK, LARAMIE, WYO.

Instead of packing our wool in the ordinary wool bags as we had done in the past, we used a modern wool-press in which the wool was compressed into neat bales that seem much more attractive. They are of such size and dimension as make them easy to load into cars and take a lower freight rate than the bags, which is an item not to be overlooked. These bales were each

plainly stenciled showing the number of the grade, weight of the bale, the shipper's name and the destination.

It is not possible to say at this time whether this system will pay for the additional expense as the wool has not been offered for sale. We believe, however, that the superior manner in which the wool is packed will at least pay this additional cost; it should do much better.

The most important item of all in the use of this system is the education the wool grower must receive in closely studying the various grades, a very strong point that in most cases has been entirely unknown. It is not difficult to learn and after a few season's experience most wool growers will be able to judge of his own knowledge in a general way, what grades fit his clip, and after the wool is put into bales and weighed the grower knows how much wool there is in each class and in connection with the market report, he can estimate its value.

In our case we do not hesitate to say that we have learned more about our own wool than we ever knew and are so well satisfied with the experiment that we will be fully repaid even if we do not obtain a better price on account of the superior condition.

THE ADAMS-McGILL CO.,

Ely, Nevada.

GOOD WYOMING WOOL.

Last month we published a photo of some "Dickie Merino" ewes owned at Dickie, Wyoming. Naturally such ewes should produce excellent wool, so we sent for a sample of it. This wool is most excellent in character in every particular. Soft to handle and bright in color and a large percentage long enough to comb. It is the type of fine wool so common in the range states a few years ago, but which has now largely disappeared due no doubt, to the tendency to breed for mutton regardless of the affect on the wool crop. This Dickie wool proves that any time it is profitable to do so, the West can raise as good wool as any part of the world.

GREAT SHEEP AND RAM SALE

The following entries have been made for the first Annual Sheep and Ram Sale to be held under the direction of the National Wool Growers Association at Salt Lake City, Utah, September 7th and 8th, 1915.

RAMBOUILLETS

- 50 Registered Rambouillet Stud Rams—Consiged by Butterfield Livestock Co., Weiser, Idaho.
- 50 Registered Yearling Rambouillet Stud Rams—Consiged by A. A. Wood & Son, Saline, Michigan.
- 15 Registered Yearling Rambouillet Stud Rams—Consiged by Baldwin Sheep Co., Hay Creek, Oregon.
- 25 Registered Yearling Rambouillet Stud Rams—Consiged by F. S. King Bros. Co., Laramie, Wyo.
- 25 Registered Yearling Rambouillet Stud Rams—Consiged by Lincoln Bros., Milford Center, Ohio.
- 10 Registered Rambouillet Stud Rams—Consiged by W. S. Hansen, Collinston, Utah.
- 25 Registered Yearling Rambouillet Stud Rams—Consiged by J. K. Madsen, Mt. Pleasant, Utah.
- 50 Registered Yearling Rambouillet Stud Ewes—Consiged by Butterfield Livestock Co., Weiser, Idaho.
- 20 Registered Rambouillet Yearling Stud Ewes—Consiged by A. A. Wood & Son, Saline, Mich.
- 25 Registered Yearling Rambouillet Stud Ewes—Consiged by Lincoln Bros., Milford Center, Ohio.
- 10 Registered Rambouillet Stud Ewes—Consiged by W. S. Hansen, Collinston, Utah.
- 250 Purebred Rambouillet Yearling Range Rams—Consiged by Cunningham Sheep & Land Co., Pilot Rock, Ore.
- 150 Purebred Yearling Rambouillet Range Rams—Consiged by James Port, Oakley, Idaho.
- 150 Purebred Yearling Rambouillet Range Rams—Consiged by Butterfield Livestock Co., Weiser, Idaho.
- 100 Purebred Yearling Rambouillet Range Rams—Consiged by Baldwin Sheep Co., Hay Creek, Oregon.
- 50 Registered Yearling Rambouillet Range Rams—Consiged by A. A. Wood & Son, Saline, Mich.
- 25 Purebred Yearling Rambouillet Range Rams—Consiged by F. S. King Bros. Co., Laramie, Wyo.
- 50 Purebred Yearling Rambouillet Range Rams—Consiged by C. N. Stillman, Sigurd, Utah.
- 25 Registered Yearling Rambouillet Range Rams—Consiged by J. K. Madsen, Mt. Pleasant, Utah.

DELAINES

- 5 Registered Delaine Stud Rams—Consiged by Baldwin Sheep Co., Hay Creek, Ore.

COTSWOLDS

- 35 Registered Cotswold Stud Rams—Imported from England for this sale by F. W. Harding, Waukesha, Wisconsin.
- 100 Purebred Yearling Cotswold Range Rams—Consiged by Deseret Livestock Co., Boise, Idaho.
- 25 Registered Cotswold Yearling Stud Rams—Consiged by R. S. Robson & Son, Ontario, Canada.
- 40 Cotswold Yearling Range Rams—Consiged by R. S. Robson & Son, Ontario, Canada.

HAMPSHIRE

- 50 Registered Hampshire Stud Rams and Stud Ewes—Consiged by Walnut Hall Farms, Donerail, Ky.
- 50 Registered Hampshire Stud Rams—Consiged by Butterfield Livestock Co., Weiser, Idaho.
- 50 Registered Hampshire Stud Ewes—Consiged by Butterfield Livestock Co., Weiser, Idaho.
- 15 Imported Hampshire Stud Rams—Imported for this sale by F. W. Harding, Waukesha, Wis.
- 50 Purebred Hampshire Yearling Ewes—Consiged by Butterfield Livestock Co., Weiser, Idaho.
- 200 Purebred Hampshire Ram Lambs—Consiged by Walnut Hall Farms, Donerail, Ky.
- 100 Purebred Hampshire Yearling Rams—Consiged by Wood Livestock Co., Spencer, Idaho.
- 100 Purebred Hampshire Ram Lambs—Consiged by Butterfield Livestock Company, Weiser, Idaho.

LINCOLNS

- 50 Purebred Lincoln Ram Lambs—Consiged by Stanley Coffin, North Yakima, Wash.
- 150 Purebred Lincoln Yearling Range Rams—Consiged by F. R. Gooding, Gooding, Idaho.
- 25 Purebred Yearling Lincoln Rams—Consiged by Laidlaw & Lindsay, Muldoon, Idaho.
- 25 Registered Lincoln Yearling Stud Rams—Consiged by R. S. Robson & Son, Ontario, Canada.
- 10 Registered Lincoln Stud Ewes—Consiged by R. S. Robson & Son, Ontario, Canada.

ROMNEYS

- 100 Three-quarter Blood Romney Ram Lambs—Consiged by Stanley Coffin, North Yakima, Wash.

CROSS-BREDS

- 100 Yearling Crossbred Rams—Lincoln-Rambouillet—Consiged by Wood Livestock Co., Spencer, Idaho.
- 50 Yearling Crossbred Rams—Lincoln-Rambouillet—Consiged by Cunningham Sheep & Land Co., Pilot Rock, Oregon.
- 50 Yearling Panama Rams—Lincoln-Rambouillet—Consiged by Laidlaw & Lindsay, Muldoon, Idaho.

SEND FOR CATALOG.

ENTRIES FOR RAM SALE.

Through an error on the part of the editor, the entries for the ram sale appearing on page 4 of this issue do not contain the entry of R. S. Robson of Denfield, Ontario, Canada. These people have entered for the ram sale 25 registered yearling Lincoln stud rams, 25 registered Cotswold stud rams and 40 yearling range rams as well as 10 registered Lincoln ewes.

Also the entry of Lincoln Brothers of Milford Center, Ohio, should carry 10 registered Rambouillet ram and ewe lambs suitable for show purposes.

WITH OUR ADVERTISERS.

The National Wool Grower has maintained the highest possible integrity in its advertising policy. We have not given our advertisers any write-ups endorsing their flocks nor can we do so. Where a paper starts to write big stories about the sheep owned by its advertisers, they must write

practically as good a story for the man who has scrub sheep that advertisers as for the man who has high class sheep that advertises. In other words when you come to write material about advertised stock, you have to say the same thing about all of them. The National Wool Grower being conducted on a high plane cannot do this, and the men who carry advertisements with us do not expect it. In our advertising pages will be found a notice of many of the best flocks in the country, and, when you write them about rams, it will be an accommodation to this paper if you will state that you saw their advertisement in The National Wool Grower.

NEVADA WOOL CONSIGNED.

A sheepman from Reno, Nevada, who was recently in this office, said: "For some reason or other Nevada did not sell its wool at home this year. Most of it has been consigned to commission firms in Philadelphia or Bos-

ton. At the time our wool was shorn, the demand was not very strong, and we did not accept the price offered. That is the reason why many Nevada wool growers still own their wool."

GOVERNMENT HUNTERS.

We are advised that the Government has had some hunters on the range in western states for the past three months and that they have been successful in locating a considerable number of coyote and wolf dens.

Under the law appropriating \$240,000.00 for the destruction of predatory wild animals on the public lands, it is intended to start a vigorous campaign early next month both on the forest reserves and all lands adjoining. A government official has recently been in the West arranging for this campaign.

Read what the president of the Idaho wool growers says about the Salt Lake ramsale.

WHEN you ship your Sheep and Lambs consign to us. You will find our service—"A Square Deal" the kind you want.

The Knollin Sheep Commission Co.

Chicago : Kansas City : South Omaha : South St. Joseph : Denver
and represented at East St. Louis : St. Paul and Fort Worth.

OREGON WOOL SOLD.

The wool around Pendleton, Oregon, has all been sold at 18 to 20 cents for fine, and 24 to 26½ cents for coarse. The shrinkage of our fine wools was estimated around 67 per cent in this section. The fine wools sold at the same figure last year and in some cases brought more than they did this year.

J. N. BURGESS,
Umatilla County, Ore.

**CANADIAN WOOL
GROWERS HOWL**

When the British Government recently put an embargo on the Canadian wool clip, thereby excluding American buyers, it gave Canadian manufacturers a monopoly and they promptly displayed their rapacity by bidding 40 per cent less than Montana prices. A more effective method of repressing production could not be devised, but human nature appears to be as porky in Canada as in other parts of this mundane sphere. Canadian newspapers are now demanding that if the Government sees fit to prevent exportation of wool it should protect the producer from the dealer and manufacturer by establishing prices. Canadian manufacturers not satisfied with the possession of lucrative contracts

for army supplies have deliberately tried to mulct the wool grower. That sheep husbandry does not thrive in the Northern Dominion is not surprising.

J. E. P.

OUR COVER DESIGN.

The photograph of baled Montana wool appearing on the cover of this paper is from a clip of wool put up in Montana last year by the National Wool Warehouse and Storage Company. This wool was graded and then baled, and we especially desire to call attention to the neatness in appearance of this package.

**NATIVE SHORTAGE
NOT EXAGGERATED**

How the ovine population of the cornbelt states has dwindled in recent years is revealed by wool scarcity this season in that region. Wm. McFadden, secretary of the American Poland China Record Association and an extensive wool operator said:

"Everywhere I have been this year, I found little wool. The native sheep is becoming scarcer each year. In some sections of Eastern Iowa where a few seasons back one could secure wool by the carload, practically none is now available. For some reason or other farmers do not want sheep

around the place and revival of the industry even in response to present high prices is improbable."

Other buyers who have been scouring the country tell the same story. The farm carrying a band of ewes is a novelty, although wherever decently cared for they pay big returns on the investment.

J. E. P.

HUNTING WOLF DENS.

A Dillon, Montana, sheep man writes us: "I think the suggestion of hunting wolves and coyotes when they have young in their dens is a most excellent one. A few days ago one of my men located a wolf den and got six pups. These dens are not hard to locate and when found are easily dug out. Next spring I will put a man at this work for two month."

AUSTRALIAN RAILROADS.

The railroad service of Australia is said to be the poorest in the world. All the lines are owned by the states and when they were constructed each state adopted a different gauge. This resulted in the tracks of the many states ranging in width from 3-foot 6 inches up to 5-foot 2 inches. The federal government has now raised \$60,000,000 to standardize all the roads of Australia.

**Mr. Woolgrower:**

You and Your Family are going to the Pacific Coast to visit the Two Big Fairs? Sure. The Old Reliable Line with Safety and Service is at your Service. We want your business, both Freight and Passenger. We desire to show our appreciation of it by taking a personal interest in each and knowing that you are well taken care of.

For beautifully illustrated literature, rates, information or anything else you desire, write or better still call on—

J. M. FULTON, Ass't Gen. F. & P. A., Reno, Nevada

H. F. KERN, General Agent, Denver, Colorado

C. L. McFAUL, District F. & P. A., Salt Lake City, Utah

Mother's Independence

world. They think so too and your plans and dreams all begin and end at the same place, a desire to give the mother and the children the best that life can afford. You are making good or at least giving them a good home. You will continue to do so **if you live**. But you haven't any mortgage on life. If you should die, would your family have added to their grief the misery of want? Mother's independence and the children's home may be made sure in a Life Income Policy in—

You love your children devotedly and you are quite sure that you have picked out for them the very best mother in the

Continental Life Insurance Company

F. J. HAGENBARTH, President
H. C. EDWARDS, General Counsel
W. S. McCORNICK, Treasurer

McCORNICK BUILDING

Salt Lake City, Utah

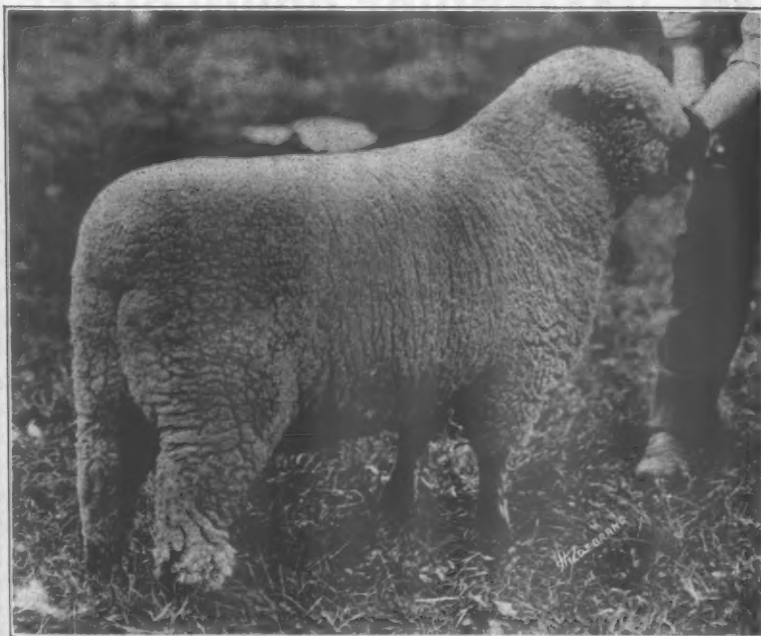
H. N. MAYO, Medical Director
C. W. HELSER, Supt. of Agencies

CONTINENTAL LIFE INSURANCE COMPANY,
Salt Lake City, Utah.

Gentlemen: Without in any way committing myself I hereby request further information on a "Mother's Independence" Policy to provide a Monthly Income of \$..... My age, nearest birthday, is..... years. My wife's age, nearest birthday, is..... years.

Signed.....

Address.....



We Bought This Ram to Head An Extra High Class Lot of Ewes Purchased from Pulling & Son of Michigan.

Rams Rams Rams

We can supply you with choice Shropshire, Oxford and Cotswold Ram Lambs. Our lambs were dropped in March. They are range raised, when weaned we place them on excellent pasture with grain feed also, which insures fat and hardiness, a condition necessary for good results, and we guarantee satisfaction.

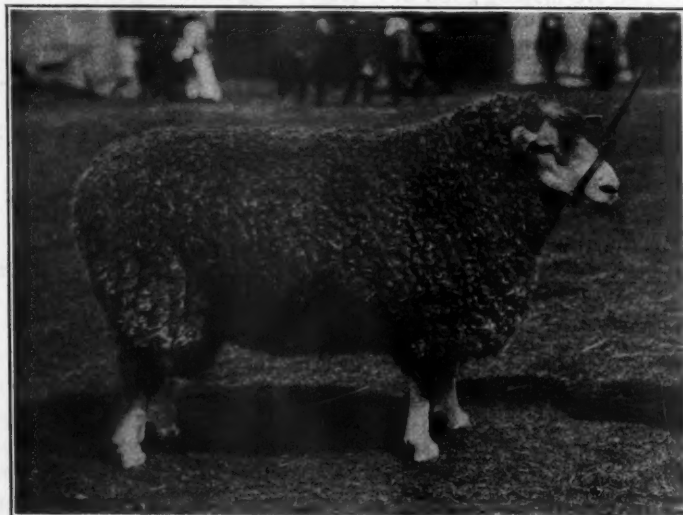
Knollin & Finch
Soda Springs, Idaho

Knollin & Myrup
Howe, Idaho

OR

A. J. Knollin, South Omaha, Neb.

1000 Yearling Rams For Sale



500 Lincolns

500 Cotswolds

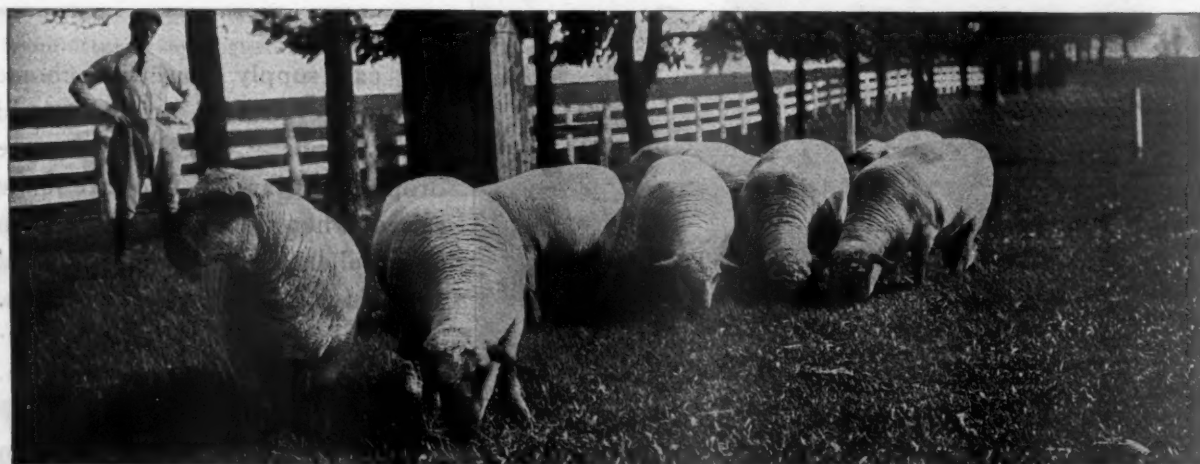
BRED AND RAISED ON THE RANGE

These sheep are ranged in a high altitude and are free of any lung disease; big, strong, hardy fellows with sound feet, and have always given splendid satisfaction for range use. I am going to make the prices right. Write for information.

If you are interested, I would advise placing your orders early for I never have rams enough to meet the demands upon my herd.

F. R. GOODING, - Gooding, Idaho

WALNUT HALL FARMS—HAMPSHIRE DOWN SHEEP



SOME OF THE WALNUT HALL STUD RAMS—These rams were machine sheared two months before photo was taken.

30 STUD RAMS AND 220 FLOCK EWES were selected in England last summer and added to this flock at a cost of \$20,000—A BIG INVESTMENT YOU THINK for a few sheep. Do YOU know of any bank or trust company in the United States that will pay you 18 per cent or 20 per cent on your money? No you don't. There are other ways of getting it. The Hampshire Down sheep business is one of them.

Address all communications to— **Robt. S. Blastock, Mgr., Box Y, Walnut Hall Farms, Donerail, Ky.**

JUNE LIVE MUTTON MARKET.

By J. E. Poole.

More scarcity forecasts were made good by the western and southern sheep and lambs during June. Consumptive demand fell off sharply, high cost of the meat necessitated by record June prices for the stock on foot, putting lamb out of the reach of the masses, but with supply so meager, killers made comparatively little headway in their bear raids on hoof cost. There were some sharp price fluctuations but every break was quickly followed by a reduction in receipts and consequent reaction.

Chicago received but 225,000 head of ovine stock in round numbers during the month, a decrease of nearly 33 per cent from the June, 1914, supply itself below normal. Out of this small crop, packers had in 97,500 head direct from Ohio River points leaving an actual market supply of less than 100,000 natives and fed westerns here, as 114 doubt-decks, approximately 29,000 head of northwestern range stuff made an appearance. Shortage in the southern movement (Tennessee, Kentucky and Texas stuff) was one of the underlying factors of strength in the months trade. In June, 1914, Chicago killers received approximately 115,000 head of Kentucky and Tennessee stuff direct, while 145,000 arrived from that source direct in June, 1913. As Chicago packers have secured a larger percent of the southern run this season than last, the shortage of the 1915 spring lamb crop in that section is even greater than indicated by the above figures. As a ewe shortage was responsible the percentage of lambs to ewes bred been normal or above, as flock masters down there stand little chance of obtaining much breeding stock this summer, another small lamb crop in those states for 1916 is assured.

Barring a few loads of ordinary Mexican stuff of Texas grass and a few odd natives, all old crop lambs, sheep and yearling stuff received came shorn. A few struggling loads of Colorado-fed lambs with the wool off arrived during the first ten days of June

and the wind-up of the Colorado season was all that feeders who had been playing the market for a hot finish on their last offerings could expect. Several of these belated shipments sold at \$10.60@10.75 and one lot at \$10.85, the highest shorn lambs on record, 20c above the May top and \$2.10 per cwt. above the extreme top on shorn lambs in June 1914. Fed western shorn lambs reached \$10.60 and natives \$10.25, but a spread ranging from \$7.75 to \$9.25 took plain to best toward the close when a mere handful of natives and tail-end fed western stuff was coming. Old crop lambs sold at an average of \$9.20 for the month, against the record average of \$10 for May.

Native spring lambs sold up to the

of range stock. The seasons initial shipments to Chicago consisted of a 14-car train of the Rothrock, Washington, aged lambs and yearlings selling at \$8.35@8.75, with a few culls at \$6. Subsequent shipments of Oregon aged lambs and yearlings sold at \$7.50@7.75, and of Idaho stock of the same ages at \$7.75@8.15. Idaho ewes sold at \$5.25@6.00 for fat ends and Idaho wethers made \$6.85@7.00. Oregons selling on the final session of the month at \$10.25, with culls at \$7.75. The June, 1915, top on new crop range lambs at \$10.90 (a yard record) compares with an opening sale of \$9.35 in June, last year, and \$7.25 for the first and only Idaho springs arriving in June, 1913. The range movement got under headway earlier this season than



RAMS FROM WOOD & SON, SALINE, MICHIGAN TO BE SENT TO THE RAM SALE.

heretofore unheard of June price of \$12 on the high spot the second week of the month, while bulk of the June supply made \$9.75 to \$11.75, although at the close the extreme packer limit was \$10.25. In June, 1914, no spring lambs passed \$10 and \$9.00@9.75 took the bulk. Sorting was light at most all times, though underweights were getting discrimination at the close. The buying of stuff straight or with very light sorts served to keep the top below its legitimate level as contrasted with stuff of lesser actual value and created a one-price market much of the time to the disadvantage of the shipper of choice goods.

Idaho, Washington and Oregon contributed to the month's 114 car run

usual, because of earlier breeding and very attractive markets. Omaha had two loads on June 7, the earliest on record and they sold at the new record price of \$11.75, but Omaha and other "river" markets were lower than Chicago toward month-end when western stuff was coming with some freedom.

There was a very short crop of natives, as well as western aged muttons all month, suggestive of both scarcity and a determination on the part of flockmasters to conserve breeding stock. At that it was almost entirely a ewe run as concerns material stuff. Native shorn ewes topped at \$6 while odd native shorn wethers made up to \$7. Bulk of the fat ewes, however, sold at \$5@5.75 and owing to the

scarcity of wethers the average price of matured sheep was put down to \$5.60. There was narrow outlet for sheep, especially weighty stuff, all month and although prices were well sustained compared with closing levels of May sales were far below the May average which was \$7.45. Shorn yearling wethers sold upward to \$9 during the month, but were scarce at any price.

Rams Wanted!

We want a carload of fine woolled rams. Must be the large, long bodied, heavy boned kind with smooth necks, and plenty of wool.

For particulars address

CARL RUEGER
Box 488 Dillon, Montana

ASHTON SHEEP YARDS

ESTABLISHED 1895

Better equipped than ever for the handling of sheep for feeding and grazing. Best of grass and running water in every pasture. YARDS 80 MILES WEST OF CHICAGO on main line C. & N. W. Ry.
KNAPP & SMITH :: Ashton, Illinois

SHEEP RANCH

We offer for sale in Western Wyoming a sheep ranch that carries 12,000 to 14,000 ewes and their lambs—20,000 acres of land at \$2.50—3,500 ewes with wool on at \$7.50, wool contracted at 25 cents. Forest Reserve right for 6,500 ewes at \$1.50 on the Wasatch and Ashley Forests. Lambs from this range last year weighed 75 pounds. One of the best sheep layouts in the West. Will sell on easy terms.

HEBER LAND & LIVESTOCK CO.
325 VERMONT BLDG, SALT LAKE CITY

At the close good spring lambs were selling \$1.00@\$1.25 below the close of May, fat shorn lambs and yearlings at declines of from \$1.25@1.75, while matured wethers were close to steady and fat ewes mostly 25c higher, ewes having been relatively low and out of line with other classes at the May wind-up.

The average and top prices of sheep and lambs on the Chicago market for the month follows:

Week Ending:	Bulk of Sheep.
June 5	\$5.50@5.75
June 12	5.50@6.00
June 19	5.00@5.50
June 26	5.00@5.25
June 30	5.50@6.75
Week Ending:	Bulk of Lambs.
June 5	\$11.50@11.75
June 12	11.25@11.75
June 19	9.75@10.75
June 26	9.75@10.75
June 30	10.25@10.50

Top Prices.

	Sheep.	Lambs.
June 5	\$6.75	\$11.75
June 12	7.00	11.75
June 19	6.50	11.00
June 26	6.50	10.60
June 30	6.50	10.85

Average Prices.

Week Ending—	Sheep.	Lambs.
January 2	\$5.80	\$8.50
January 9	5.80	8.50
January 16	5.55	8.30
January 23	5.75	8.30
January 30	6.00	8.50
February 6	6.30	8.90
February 13	6.50	8.45
February 20	6.75	8.50
February 27	7.25	9.15
March 6	7.50	9.65
March 13	7.60	9.55
March 20	7.50	9.65
March 27	7.50	9.50
April 3	7.50	9.25
April 10	7.50	9.40
April 17	7.75	9.70

April 24	7.80	9.65
May 1	7.70	9.75
May 8	7.65	9.50
May 15	7.90	10.35
May 22	7.40	9.90
May 29	6.60	10.25
June 5	6.65	10.20
June 12	5.75	9.85
June 19	5.25	8.50
June 26	5.50	8.10

JAMES C. KNOLLIN MARRIED.

James C. Knollin, son of A. J. Knollin, Eastern vice-president of the National Wool Growers Association, was married late in June to Miss Amy Elizabeth Axtell, daughter of Mr. and Mrs. W. H. Axtell of Golden, Colorado. Mr. James C. Knollin is known to many wool growers and has frequently sent communications to this paper. He is manager of his father's ranch near Kansas City, Kansas.

WILL ATTEND RAM SALE.

We believe that the ram sale at Salt Lake City is just what the country needs, and every grower who consistently can should attend, either as a buyer or a seller. Our Mr. J. P. Van Houten, who does the buying for our firm, is planning on attending the Salt Lake ram sale.

J. P. VAN HOUTEN CO.,
New Mexico.

FROM GILLETTE, WYOMING.

Like every other section of the country May and June were both exceptionally cold and rainy months. As a consequence the lamb crop is small and shearing very backward. Several outfits are still shearing when as a rule in this section the shearers have packed up their whet rocks and departed by the first of July.

Usually, with us who lamb on the open range, a big lamb crop and a big grass crop don't come the same years. A wet inclement spring means lots of feed and fewer lambs than usual to eat it. Probably the average percentage in Campbell county this year will not run much over sixty to sixty-five,

while according to all reports, in Johnson county it will be ten per cent less than that. Around Sheridan, where they do quite a lot of early lambing in sheds, they have done better and have a lamb crop fully up to the average.

The weather has been so cold that a lot of sheep have died after shearing at a time of year when we are accustomed to think there is no possible danger. One grower near Sheridan reported the loss of nine hundred old ewes on June 12-13, another lost six hundred out of fourteen hundred shorn at the same time and most every one who was shearing with machines around that date suffered more or less.

The wool along the main line of the Burlington is in unusually good condition this year though on the average hardly so well grown as some seasons. The average price would probably be a little better than 23 cents, several clips have brought from 24 to 25 cents and two clips that were in exceptionally light condition sold for more than 26 cents. Prices have been slowly edging up and while most of the wools bought around the end of May and early in June cost under sixty-five cents clean landed, the later purchases have generally cost over that figure and some of them look very much like seventy-cent wool.

There has been little if any trading in sheep along this line and very few of us have contracted our lambs. With the amount of feed and water in sight we feel the lambs ought to come into the shipping yards in exceptionally good condition and we are confident that, like wool, they will this year bring a better price than ever before. This country has been buffeted very hard by adverse weather conditions in the past five years and the sheepmen feel that they can stand a little touch of prosperity without waxing fat and kicking.

ERNEST P. SPAETH,
Wyoming.

Lots of good sheep and rams advertised in this issue.

EVERYTHING WILL BE HELD BACK

Trade scouts returning from the West all make the same statement that retention of ewes of all ages will be general. How short the whole region beyond the Missouri River is of breeding stock is not generally understood. Some blackface ewe lambs will be sent to the shambles, but there is a disposition to retain the best of these and few whiteface young ewes will be sacrificed. Yearling ewes are in most cases not for sale and every old ewe susceptible of being wintered to raise a lamb and yield a fleece will have its life prolonged.

Commission houses are advising customers in the East that orders for western breeding stock will probably not be filled. Demand is general and emphatic, but, as a rule, orders are pegged at figures that render expectancy of execution anything but bright. The last thing a commission man wants now-a-days is an order for western breeding stock.

J. E. P.

IDAHO COTSWOLDS

55 head Cotswold rams, 10 four-year olds, 12 three year old, 16 two-year old, 17 yearlings, sired by Gara & Sons, Swannick, and Koser bred rams. Ewes from flocks as Keyt, Koser, Wm. Riddle & Sons and Kirby of Oregon and J. R. Allen of Utah.

F. W. DALTON, Manard, Blaine, Co., Idaho

Hampshire Rams and Ewes For Sale

100 Registered Rams. 100 Registered Ewes.

CATALOG FREE.

INVESTIGATE THE HIGHLANDS OF VA. AND W. VA.
IT IS HERE THAT—

1. The highest priced wool and mutton are grown.
2. The Eastern markets are near which are often one cent higher than Chicago.
3. The altitude is from 2000 to 5000 feet and sheep keep healthy.
4. The land is fertile, blue grass is indigenous and the clovers thrive.
5. The forests are being removed and large tracts can be bought or leased cheap.

Write H. W. McLAUGHLIN, Raphine, Va.

Messrs. HICKMAN & SCRUBY, Court Lodge, Egerton, Kent,
England

Exporters of Pedigree Livestock of All Descriptions

Illustrated Catalogues, and References
on Application

We live on the spot, and ship direct to our clients and the commission we charge for buying amounts to less money than the cost of a trip to this side. Horses, cattle and sheep can be bought cheaper through us than by any other method.

We live in the heart of the Romney country and can supply breeding stock of this favorite breed to the best advantage.

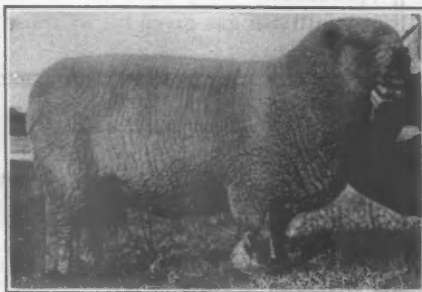
REGISTERED SHROPSHIRE

350 head in flock with as many more in vicinity. Car lots of better quality and breeding than usually found in lots of this number. High class breeding or show stock in single crate lots. Can give EXPRESS rate to your town.

Zelora Green, Prop. OAKLAND, ILLINOIS J. D. A. Green, Mgr.

(Mention the National Wool Grower)

800 SHROPSHIRE RAMS



I offer for this season
800 head of purebred
Shropshire Yearling
and Ram Lambs.

THESE ARE HARDY
RANGE RAISED RAMS

P. D. NEER, Twin Falls, Idaho

FOR SALE RAMBOUILLET RANGE EWES

12,000 big, smooth Rambouillet Range Ewes 2, 3 and 4 years old. 2000 more 5 and 6 years old. These ewes are on the Forest Reserve near Leadville, Colorado.

FOR PRICES ADDRESS

L. C. SEWELL, Payette, Idaho

SHEEP FOR SALE!

A STUD FLOCK, consisting of 1055 Rambouillet ewes, and 900 Hampshire ewes; and 475 Yearling ewes about evenly divided between the two breeds in numbers. Buck business established 15 years. Ready sale for all bucks can raise. Grazing rights on National Forest, Ranch in Colorado.

ALSO, Ranch of 480 acres first class deeded land; cuts 200 tons native hay; 50 acres alfalfa, 90 acres pea ground; 2 silos capacity 300 tons silage, 3 artesian wells, 1 first class 7-room frame house, and 1 large 3-room adobe house. The ranch is fitted up for handling sheep, with corrals, dipping plant, lambing sheds and lambing pastures.

ALSO, 100 acres deeded land in National Forest with segregated range surrounding it for ewe and lamb herds. Will sell sheep with or without the land. Age and ill health reason for selling.

Address NATIONAL WOOL GROWER
SALT LAKE CITY, UTAH

Sheep and Ranch For Sale!

Outfit consists of 7500 breeding Ewes, with Forest Reserve for 5000, balance have good range on public and leased lands. Two ranches of 160 acres each. Price, \$6 per head delivered this fall. \$3000 for both ranches. Horses and bucks at reasonable prices.

CASTOR ALDECOCEA, Boise, Idaho

EWES FOR SALE

Delivery any time after July 15, 1915.

Railroad Stations, Power, Cascade and Vaughn, Montana. All in vicinity Great Falls. Great Northern and Burlington Railroads.

5,000 medium coarse wool yearling ewes.

4,000 medium wool 2 year old ewes dry.

3,700 medium wool 3 and 4 year old ewes with lambs.

6,300 medium wool 5 and 6 year old ewes with lambs.

Estimated lambs—6,250 Cotswolds; 1,360 Fine Wools.

For further particulars apply to

SUN RIVER STOCK & LAND CO., In care of C. B. POWER, Helena, Montana

SHEEP FERTILIZE HIGH SPOTS

How sheep improve land is demonstrated wherever the golden hoof comes in contact with the soil. A Chicago man several years ago purchased a Northern Indiana farm on which a number of sandy high spots appeared conspicuously detracting from its appearance especially during the vernal season when grain on such elevations contrasted disadvantageously with the low spots.

"I'll make those high places the most fertile soil on the farm," he asserted, and he has done so by the simple process of feeding sheep, taking advantage of their proclivity for seeking dry spots. This year the elevations produced more wheat than black land in the depressions and in two years the wheat growing capacity of the soil whereon sheep had been fed has been doubled. This is one reason why the cornbelt is clamoring for western sheep.

J. E. P.

TREATMENT FOR BLOAT.

The Kentucky Experiment Station has been attempting to determine the cause of bloating in cattle when feeding on clover or alfalfa. They have proved that red clover blossoms contain about $3\frac{1}{2}$ per cent of sugar, while alfalfa blossoms contain 2.8 per cent of sugar and white clover blossoms, 2.4 per cent. It is well known that materials containing sugar ferment very rapidly and wherever fermentation is present, considerable gas is produced. They have shown that the quantity of gas given off by these blos-

soms under fermentation is very large and they think that this is the cause of bloating so commonly met with in cattle, while grazing on these pastures.

As a treatment for bloating they suggest the use of formaldehyde, and in two cases have been very successful in relieving this bloat with a solution of this remedy. They recommend that for bloating in cattle that the animal be drenched with one quart of $1\frac{1}{2}$ per cent solution of 40 per cent formaldehyde and afterwards that a small block be put in the animal's mouth to facilitate the eruption of the gas. It is just probable that this treatment in small doses would be very useful in treating sheep for bloat and it might also prove a valuable treatment for sheep that have been poisoned on certain plants.

TWENTY-NINE CENTS

FOR COKEVILLE WOOL

The different sheep outfits in which the Covey Brothers are interested in the vicinity of Cokeville, Wyoming, have recently sold their entire clip at 29 cents per pound. We understand that the clip represents about a quarter of a million pounds and the wool is composed largely of crossbred qualities.

LIKES CORRIEDALES.

The government Corriedales went through Elko, Nevada, last month and they stopped a few minutes at the depot so I got a chance to see them. I like them very much and believe they have a good future in this country. I think they would do well in Nevada. Last year I sent to New Zealand for forty Corriedales but because of the war did not get them.

I am advising our sheep men in this section to attend the Salt Lake Ram Sale and I think many will do so.

Much of the Nevada wool clip has been consigned to Philadelphia. The buyers did not make satisfactory offers and we would not sell.

A. E. KIMBALL, Nevada.

PROFITABLE LAMB FEEDING.

W. H. Firke of Pratt County, Illinois, has discredited the contention that high-priced feeders are invariably money losers.

Last April he gave sheep-house talent a jolt by paying \$10.25 per cwt. at Omaha for three double decks of feeding lambs, taking two other loads at \$9.85. Everybody insisted that his head ought to be examined, but he demonstrated his sanity by marketing the flock at an actual net profit of \$1591.45.

The band of 1,279 head cost \$9,265.36 at Omaha. Freight home was \$279.75; shearing, \$128.00; twine for tying the wool \$4.00; corn, 985 bushels at 70 cents, \$689.50; hay \$62.50; labor \$331.00; interest \$76.00, making the outlay when sent to Chicago, \$10,538.11.

After a 55-day feed, the lambs sold at \$10,024.45 net and the wool at 25 cents per pound realized \$2,004.62. Allowing \$100.00 for 45 loads of manure, Firke figured his net profit at \$1,591.45.

J. E. P.

AROUND**MILES CITY, MONTANA**

Range conditions around Miles City, Montana, are very good and sheep are looking fine. We had one of the best wool clips here that we have had for several years. The lambing season

has been very good, and a large percentage of lambs have been raised.

Shearing was light this year as there was so much rain after the first of June.

No new men are going into the sheep business in this part of the country, but many of the old men are going out of the business. Farmers are taking up the range very rapidly. There is quite a number of sheep for sale in this section at the present time. While the demand for mutton sheep is very good, there is very little call for stock sheep, as it is too early in the season.

DAN LEVALLEY, Mont.

Get us a new subscriber?

The Cotswold Ram

gives the best results, large, vigorous lambs and heavy shearers we are still in the lead and offer the best yearlings for the least money.

A. N. MURDOCK & SONS

Phone 21

SUGAR CITY, IDAHO

Lincolns 1915 Cotswolds

150 purebred LINCOLN and COTSWOLD yearling rams. 150 LINCOLN ram lambs. 150 COTSWOLD ram lambs. Also one car of choice young ewes.

R. S. ROBSON & SON

DENFIELD, ONTARIO, CANADA



**Rams
for
Sale**

A band of 1000 purebred Lincoln and Cotswold Ewes. Bred from the best stock to be found in United States and Canada. Owned by Austin Bros., Salt Lake City, Utah

EXCELSIOR STOCK FARM

J. R. ALLEN & BROS.
DRAPER, UTAH



The World's greatest flock of Cotswolds consisting of 3000 registered breeding ewes of best breeding and highest merit. The best blood imported from England for past twenty years has been added to this flock.

They winter 4,000 and summer 10,000 feet above sea level. They are raised on the range under the most favorable conditions known conducive to perfect health. No stomach or lung worms so prevalent in eastern bred sheep. For flock headers we can furnish rams that cannot be excelled and we think superior to best ram brought to this country from England. We are offering 1,500 Yearling Rams, 1,500 Ram Lambs, a few cars of Breeding Ewes and Ewe Lambs. Come and see us and these sheep—you are always welcome.

Many of the best Hampshires produced in America and England including the leading prize winners have been added to our flock.

ROMNEY —AND— LINCOLN BUCKS

H. STANLEY COFFIN
North Yakima, Washington

Write to me now and engage such
Romney and Lincoln rams as you
are going to need this fall.



Yearling Romney Ram Imported by Stanley Coffin
N. Yakima, Washington.

I will have about five hundred LINCOLNS and three hundred ROMNEY ram lambs to offer for the Fall trade. They were dropped in February, are large, husky fellows, big boned and the kind when crossed on Merino ewes that get lambs which top the Chicago market; if kept until yearlings they shear ten to twelve pounds of the highest priced wool now bringing as much as 28 cents per pound in the West.

I have sold two train loads this Spring, of half blood Lincoln yearling ewes sired by my own rams, to Wyoming sheep men.

I intend shipping a deck-load each of Romneys and Lincolns to the Salt Lake sale this Fall. I deal in sheep of all kinds. Write me if you want sheep and get your orders in early for long wool rams as the kind I have are scarce. I also have full blood LINCOLN EWES for sale.

GOOD IDAHO LAMBS.

In reply to yours of recent date for information regarding lambs shipped to market June 12th from Hill City, Idaho, will say that this shipment was from grade Cotswold-Merino and Lincoln-Merino ewes, bred to thoroughbred Hampshire bucks. Lambing began February 5th and this bunch of lambs were practically all singles, only 4 per cent were cutback and the 96 per cent weighed 66 pounds in Omaha.

Ewes were wintered on the desert till about January 15th, being fed cottonseed from the beginning of December, beginning with one-eighth of a pound and increasing to about one-fifth of a pound. About the middle of January we began to feed hay, browsing out in the middle of the day, and February 1st we put everything in the feed yards, feeding about three pounds hay and one-quarter pound cottonseed per head.

Ewes were not fat but very strong and in good condition, giving abundance of milk. After the lambs came we still fed the cottonseed and all the hay they wanted, the lambs coming right along as well as they ever do on good grass.

Bands went on range about the middle of March, but the lambs got a little setback on the trail as the country was extremely dry and waterholes scarce. However, a few weeks of good grass brought them around in fine shape, and when ready to ship were an extremely even bunch of lambs.

We are all familiar with the reception given the first shipment of any size from the West, how the price dropped from \$11.75 per cwt. to \$9.50 in about four days. This shipment hit the low market as it rebounded immediately afterwards, and while it may have been unfortunate for the shipper who landed on that date, it did a good turn.

HUGH SPROAT, Boise, Idaho.

If your dues are not paid this month the National Wool Grower may not show up next month.

ONE-PRICE SYSTEM BAD.

"Hereafter I intend to discourage finishing by my customers," declared an irate commission salesman. "If packers intend to enforce the one-price system after the manner they have conducted the market this year they will have only themselves to blame for low dressing percentages.

"There go two lots of lambs to the scales from the same neighborhood. One is worth 50 cents per cwt. more than the other and yet they insisted on buying both at the same price. Just how I am going to square myself with the man who sent the good ones, I do not know. If he got all that was coming to him the other man was liberally treated, but everybody who knows market customs will realize that it was a case of quality not getting its dues."

Resentment at the one-price buying system pursued by packers is general, but salesmen are powerless to alter existing conditions. It is practical nullification of all the improvement work carried on by experiment stations and livestock expositions. Merit is no recommendation to a sheep or a lamb at the stock yards. Most of the time, and the man who puts on bloom at considerable expense is chagrined when his stuff goes to the scales at a common price in which everything at the market, good, bad and indifferent is embraced.

Buying each package at its intrinsic value would appear to be a rational policy for packers to pursue and current practice indicates that someone is blundering.

J. E. P.

FINE WOOLS MUST ADVANCE

"The only logical development in wool trade that can be safely forecasted is a narrower spread between fine and medium grades," said R. B. Thomson. "Speculators are reluctant to put money into fine wools, but sooner or later manufacturers will be under the necessity of buying them to blend with inferior foreign wool. The whole trend is in that direction.

"An embargo has been placed by the British government prohibiting the exportation, either to the United States or to Great Britain's allies, of tops, noils, yarns or animal hair. Practically the only wool or product therefrom that can be exported from England is Merino wool, corresponding to our fine and fine medium. Licenses are not granted for qualities finer than 64s.

"Agreement has been made between the English Board of Trade and the members of the Textile Alliance, Inc., so that tops and yarn may now be exported from the United States to England and it is expected that a more or less large weight will soon go forward. It now develops that during the past few weeks a large yardage of American made serges consisting of both men's wear and women's dress goods manufactured by American mills has been sold in London. These goods are intended for the civilian population and their sale in London indicates that English mills are so occupied with war equipment that a new field has developed for American manufacturers.

"Considerable inquiry by manufacturers is arising in Eastern markets for Territory wools, the three-eighths and one-quarter blood grades being chiefly inquired for. Some wool has changed hands at 30 to 31 cents but most houses are holding these grades at 32 cents and better."

The catalog of the ram sale will be very attractive.

WOOL SHORTAGE.

Latest advices from Bradford indicate a great shortage of Merino tops, Australian 64s being quoted at 42 pence, the highest price on record, while no promise of lower wool is given. Incidentally, it justifies the high prices being paid in Australia for good 64s. Already wool men are beginning to predict high prices at the next London sales, which will open June 29. The effect so far of the probable shortage in the next Australian clip on values in London and Bradford is uncertain. Recent rains have had a beneficial effect in Queensland and New South Wales, but in Victoria, especially in the Riverina district, the relief has been small. From the serious losses already suffered, the size and quality of the next Australian clip must be affected materially.

Yet as a market factor, the outlook for the coming clip is of moderate significance compared with the effect of the war. That another winter campaign, with a consequent use and waste of war material of all kinds, will ensue seems to be assumed by the trade. This undoubtedly is at the bottom of the growing confidence. That the United States will be called upon for immense quantities of war material is already assured. The only question is as to which manufacturers will get the orders, speculative buying of low wools continues to be sufficiently active to produce a constantly hardening market.—Boston Transcript.

Rambouillets Half-Bloods FOR SALE!

150 Yearling Rambouillet Rams. 150 Yearling Cross-Bred Rams—sired by Cots-wold rams and out of pure bred Rambouillet ewes.

Cranner & Goodman, Corinne, Utah

WOOL

MUTTON

RAMBOUILLETS

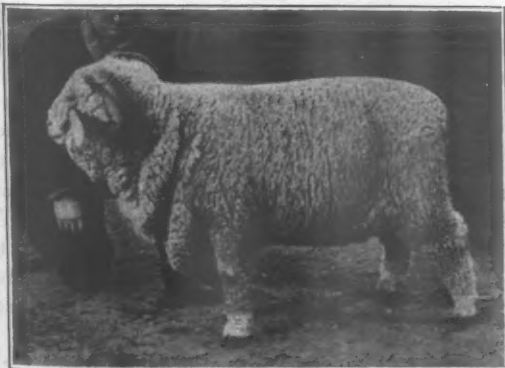
My RAMBOUILLETS are big and WELL COVERED with dense fleeces. I am breeding Rambouillets suited to give best returns on the range. Write me for prices on REGISTERED STUD RAMS or on RAMS FOR RANGE USE. Will sell in lots from one to a car-load.

R. A. JACKSON,
DAYTON, WASHINGTON

RAMS EWES RAMBOUILLETS

We have for sale a large number of registered and unregistered Rambouillet Rams. Also a limited number of good Ewes.

W. D. CANDLAND
Mt. Pleasant, Utah



In 36 months this ram sheared 78 pounds of wool.

RAMBOUILLETS

This photo shows one of our stud rams just as he came from the range. Our Rambouillets have very dense fleeces and carry lots of mutton. We are offering 1500 yearling rams.

HAMPSHIRE

Every Hampshire on our ranch is a purebred. We offer 500 February Hampshire Ram Lambs.

CUNNINGHAM SHEEP & LAND CO.
PILOT ROCK, OREGON



This is the type of stud ram we have always used.

RAMBOUILLETS

Stud Rams Range Rams

We have for sale 350 Yearling Rambouillet Rams. These rams are large, smooth, well covered with long staple wool, are raised at a high altitude and are very hardy. Our foundation Ewes are from the choicest American flocks.

J. P. VAN HOUTEN CO.
Shoemaker, New Mexico

RAMBOUILLET RAMS



Some of My Stud Rams.

I offer for this season 400 purebred Rambouillet Yearling Rams, half of which are registered. These are large, smooth, heavy woolled rams. My foundation ewes cost me \$80.00 per head and I am using imported Registered rams from the best American flocks. All I ask you to do is see mine before buying elsewhere. Photographs sent on request.

J. K. MADSEN, Mt. Pleasant, Utah

Rambouillets

Of the type and quality demanded by the best breeders in America and foreign countries. These leading flocks have rams of our breeding in use.

Rams of size, form, and long heavy fleeces, as good as can be found, now in offer.

A few very choice Standard DE-LAINES.

We are lifetime breeders of the best MERINO sheep required by the markets of the times.

Those who appreciate the value of quality and breeding are cordially invited to inspect our flocks. For any information address either

ROSCOE WOOD
DOUGLAS, WYOMING

or **A. A. WOOD & SON**
SALINE, MICHIGAN

SOUTH AFRICAN WOOLS FOR AMERICA

(Consul William W. Masterson,
Durban, S. A.)

One of the most interesting developments of the European war has been the unprecedented growth of South Africa's wool trade with the United States. While there have been occasional shipments of wool to America in the past, sales have been comparatively small because of the shortness of the fiber. With the cutting off of America's supply of foreign wool through the usual trade channels, and with the adaptation of weaving machinery to short-fiber wool, a market has developed in the United States that has proved of great help to the sheepmen of South Africa.

During the closing months of last year the British government prohibited the shipment of wool from South Africa to any but British ports, which action caused an almost complete stagnation in the wool business, but since the first of the current year this ban has been removed, and lately, with the advancing prices paid by American buyers and the procuring of vessels, a stream of shipments has set in for America that is unprecedented.

A local paper, in one of its recent issues, had this to say in regard to wool shipments:

The steamer Afghan Prince, which sailed from East London, S. A., yesterday morning under charter for New York, took the largest shipment of wool ever sent from South African ports. The shipment amounted to about 7,000,000 pounds and had a value of \$973,300. The freight was approximately \$141,000.

The question of occasional sailings from South Africa to America direct has been frequently raised during the last few years. The European war has made numerous changes in international commercial circles, but none more marked, from the South African standpoint, than that which has occurred in connection with the market for raw wools. Great Britain has been

taking practically all South African wools of medium to better grade, while Germany has taken the bulk of wasty low-grade grease wools. During the present wool season American buyers have been heavy purchasers of fair to good grade wools; such purchases will probably aggregate \$5,000,000.

FROM LAKE COUNTY, OREGON.

The wool is practically all sold here at prices from 19 to 20½ cents with a few exceptions. There was one clip of full blood Lincoln sold for 24 cents. There is a great demand from the California markets for mutton and lambs. Yearlings are selling around \$4.25, lambs from \$3.90 to \$4.25. C. E. Sherlock sold his lambs for \$4.50 August delivery. His lambs are very near full blooded Lincolns. The sheep here at the present time are in good condition as the range is in better condition than it has been for years at this time but the prospects are that it will be pretty dry before fall. There has not been any stock sheep sold but there has been a number of buyers from California here trying to buy. Conservative estimate of the amount of wool that will go out of this county is from a million and a quarter to a million and a half pounds. Last fall there was eighty-odd thousand head of mutton shipped from Lakeview on the N. C. O. Ry. I think they all went to California as there is very few sheep shipped from here East.—Lake County Sheepman.

NEW ZEALAND GOVERNMENT PURCHASE OF FROZEN MEAT

The New Zealand government has expended \$7,738,709 in the purchase of frozen meat for the home Government since it took over the control of the meat export on March 3, 1915, and there is much still to follow. The price paid is very satisfactory, and the only thing delaying shipments is a lack of refrigerator space in England.

All the rams now advertised for the sale will be at Salt Lake City.

HALF YEAR MUTTON SUPPLY. \$6.25 PAID FOR**FEEDERS ON RANGE**

At the five principal western sheep markets, Chicago, Kansas City, Omaha, St. Louis and St. Joseph during the first half of the current year there was a marked deficiency in supply. All markets except St. Joseph show big decreases, the enumeration being:

	1915	1914	Loss
Chicago	1,549,003	2,488,626	939,623
Kansas City . . .	836,736	1,004,280	167,542
Omaha	1,039,351	1,079,574	40,223
St. Louis	310,167	414,757	104,590
St. Joseph	462,034	447,568	*14,466

A comparison at these markets for the half year recently follows:

1915	4,197,291
1914	5,434,805
1913	4,993,846
1912	5,183,920
1911	4,843,613
1910	3,631,624
1909	3,825,596
1908	3,845,383
1907	4,232,008
1906	4,500,220

The figures ought to be convincing as to scarcity, both actual and impending and dispels the illusion that the big runs from 1911 to 1914, inclusive, indicated increase in production. That movement meant liquidation and results show that the scarcity forecasters were not far wrong in their diagnosis.

J. E. P.

If you want range ewes they are advertised in this issue.

Around Dillon, Montana, \$6.25 has been paid for feeder lambs for fall delivery.

The Wood Livestock Company of Spencer, Idaho, have recently been offered 6½ cents for this year's crop of lambs. The Wood lambs are from half-blood ewes out of Hampshire rams and ordinarily weigh 75 pounds at loading time. The offer of 6½ cents has been refused.

The ram sale now promises to be a successful event.

PUREBRED RAMBOUILLET FLOCK FOR SALE

I am offering for sale my entire flock of Purebred Rambouillet sheep. The flock consists of 1400 Rambouillet ewes, 500 head of ram lambs and 500 head of ewe lambs. One-half of these are registered and all are purebred. They are extra large, heavy boned and heavy wooled. The foundation ewes of this flock cost me \$80.00 per head and my stud rams are imported from the best American flocks. I think this is one of the best flocks in the West and I invite inspection.

J. K. MADSEN, Mt. Pleasant, Utah



The Baldwin Type

THIS RAM WAS
TWO YEARS OLD
IN MARCH, 1915,
AND WEIGHED
225 POUNDS

IF YOU WANT
RAMS OF THIS
TYPE WRITE TO
THE

Baldwin Sheep Co.

HAY CREEK, OREGON



One of My Stud Rams

CALIFORNIA RAMBOUILLETS

My RAMBOUILLETS are large, smooth and well covered with heavy fleeces of long white wool. They are bred in a high, dry country and are very hardy. I have 2000 one and two-year-old rams for this season. If you visit the Fair, call and see my flocks. My prices are reasonable and my rams will suit the range country.

CHAS. A. KIMBLE, Hanford, Cal.



One of My Stud Ewes

SULPHUR

ALL GRADES—ANY QUANTITY
FROM A BAG TO A CARLOAD

Z. C. M. I. Drug Store

WOOL BAGS

We handle more Wool Bags
than any dealer in the inter-
mountain region.

PAPER TWINE

"Reliance" Paper Fleece Twine has the
greatest possible tensile and tying strength.



SHEEP SHEARS

B. B. A. and 71 or
Trades Union Shears

SOFT ARKANSAS and
LILY WHITE OIL
STONES

SALT LAKE CITY,
UTAH

ATTENTION WOOL GROWERS!

SALTER BROS. & CO.

Wool Brokers

216 SUMMER STREET
BOSTON, MASSACHUSETTS

Solicit wool shipments for direct sale
to the mills. Always sold subject to
shipper's consent. Liberal advances.
Best of references.

MONTANA WOOL PRICES.

Great Falls, Montana, June 1.—
Growers are holding firmly to their
wool and most of them are asking 30
cents. 29 cents has been offered for
the clip of the Beaverhead Ranch
Company, mostly crossbred, and 28
cents for the Clear Range clip. Both
offers were rejected and all the
Penwell wools are held at 30 cents.

Burke Bros., Hogan, Montana, have
sold their clip at 28 cents. This clip is
composed of 50 per cent fine and the
balance crossbred. It goes to the
American Woolen Company.

PILOT ROCK, OREGON, WOOL AUCTION

On June 10th at Pilot Rock, Oregon,
about one million pounds of wool were
disposed of at sealed bids sales. The
highest price paid at that sale was
26 7-8 cents for crossbreds and 19 5-8
cents for fine. The Cunningham Sheep
and Land Company sold their cross-
bred wool at 24 cents and buck wool
at 16½ cents and their straight fine
wool at 18½ cents. The Warner cross-
bred wool brought 26 cents and the
fine wool 18 3-8 cents. The Pedro
clip of fine wool brought 18 3-8 cents.
The Ross clip of crossbred wool
brought 26 5-8 cents and his fine wool
18 cents. The Johnson crossbred wool

brought 26 3-8 cents and his fine wool
19¼ cents. The Rust clip of fine wool
brought 19 5-8 cents and the Dough-
erty clip of crossbred brought 26 7-8
cents.

HEPPNER, OREGON, WOOL SALE

At Heppner, Oregon, the latter part
of June more than a million and a quar-
ter pounds of wool were offered at
sealed bid auction sale. The sale was
not very satisfactory, especially to the
men who had fine wool, and a great
many clips were withdrawn. The
highest price of the sale was 27 1-8
cents for a crossbred clip, and fine
wool sold at from 16 to 19 1-8 cents.
The average offer for fine wools was
about 17 3-4 cents. Much of the fine
wool was withdrawn and has been
stored in warehouses at Heppner, Ore-
gon.

FROM SAGUACHE, COLORADO.

Possibly a few lines from this part
of Gods foot stool, may be of interest
to your readers.

We had an unusually wet spring
here this year, and now it is dry and
windy, not bad wind but enough to
dry up the country very fast. Haying
has begun and we are getting a very
light crop of hay, the first cutting of
alfalfa is not more than a third of a
crop, native hay about half a crop,
mountain pastures are very backward,
which has caused a serious shortage
in the lamb crop, with considerable
loss of grown sheep.

I have sold my wool at 25c and my
lambs at 6c; most of the owners are
holding for higher prices, a few have
sold. The wool crop is about 15 to
20 per cent short on account of the
cold spring—no grease in the wool.
Success to your splendid paper. It is
by far the best sheep and wool paper
in existence today.

T. M. ALEXANDER, Colorado.

Most of the leading stud sheep
breeders are now advertising in this
paper.

Before Disposing of Your
Wool, Phone or Write—

COFFIN & GILLMORE Wool Merchants

PHILADELPHIA, : PA.

Large Handlers of Western Wools

Local Office, D. F. Walker Block,
Salt Lake City, Utah

Phone, Wasatch 4570
J. A. KEARNS, Agent

CONDITIONS IN NEW MEXICO.

Lambing through the Northern part of the State will run at least 30 per cent lighter than usual. Through the Southern part about 10 per cent more. We should judge that 50 per cent of the lambs have been contracted at prices ranging from \$5.75 to \$6.25 per cwt. The feeders have not bought more than 10 per cent of what have been contracted, speculators being the buyers.

To date very few breeding ewes have changed hands. The growers are holding them at from \$4.00 to \$6.00, according to quality. You perhaps know that there is a great deal of difference in the classes of our ewes.

Shearing is well under way and wool generally is very light. The sheep are shearing from 1½ pounds to 2 pounds lighter than usual. So far, very little wool has changed hands, probably 25 per cent having been disposed of. Wool buyers are offering from 16c to 22c.

So far, range conditions have been very good all over the state, however, if we do not get rain inside of two weeks, a shrinkage in both sheep and cattle will likely occur.

J. P. VAN HOUTEN CO.,
Shoemaker, New Mexico.

HIGHEST PRICED**KENTUCKY WOOL**

Last week I sold 34,000 pounds of Hampshire wool at 35¼ cents. This is the highest price paid in Kentucky this year and the highest price paid in this state since 1879.

ROBT. BLASTOCK, Donerail, Ky.

HIGH HAMPSHIRE WOOL.

We have had a good season here in Virginia and the sheep business is prosperous. We are offered 33 cents for our straight Hampshire wool but we are holding it at 35 and believe we will get it.

A. M. McLAUGHLIN, Virginia.

J. BATEMAN & CO.

Successors to Justice, Bateman & Co.

Wool Commission Merchants

122 South Front Street, PHILADELPHIA

Liberal Cash Advances on Consignments. Market Report Mailed on Request.

JOHNSON, SHARP & CO.

SUCCEEDING LUCE & MANNING

Wool Merchants

Special Attention Given Consignments

232 SUMMER STREET

BOSTON

LESLEY A. JOHNSON

GEO. H. L. SHARP

FARNSWORTH, STEVENSON & CO.**Wool Merchants**

Consignments Solicited

116-122 Federal Street

BOSTON

William Farnsworth

R. H. Stevenson, Jr.

E. W. Brigham

T. S. Conant

Jeremiah Williams & Co.**WOOL**

Commission
Merchants

481 Summer Street, Boston, Mass.

Western Office, McIntyre Building, Salt Lake City, Utah



Few Farmers Realize How Much More Power They Need

There are only a few days when the conditions are just right to plow. With a Tractor you can do all your plowing at just the right time. A Tractor also gives you more power for plowing deeper, for doing more disking and harrowing, for harvesting your grain quick. Other men who own Avery Tractors have proved that Tractor Power means bigger crops, less expense and less hard work.

Learn All the Facts about Tractor Farming with Avery "Light-Weight" Tractors and "Self-Lift" Plows

The five sizes of Avery Tractors, pulling from 2 to 16 plows, make Tractor Farming successful on any sized farm—large, medium or small. All plows built alike. All light-weight for their power. Built so strong there's almost no wear-out to them. Simplest tractors of any. Proven out by every test known. Strongly guaranteed.

The Big Avery Tractor and Plow Book will tell you why Tractor Farming means Bigger Crops, Less Expense and Less Hard Work. It will tell you about all kinds of Tractor designs. It gives suggestions on choosing a Tractor. And finally, it tells about Avery Design and Construction, Avery Tests, Avery Guarantees, Avery Prices and The Company behind Avery Tractors. Write now for 1915 Avery Tractor and Plow Catalog and get all the facts.

Landes - Austin Machinery Co.
2nd W. and So. Temple St., Salt Lake City

Courtesy, Helpfulness, Strength

National Copper Bank
SALT LAKE CITY



Salt Lake Engraving Co.

DESIGNING ENGRAVING

FOUR CUTS ARE THE BEST

Salt Lake City, Utah

Mention the National Wool Grower

AFFAIRS IN ARIZONA.

Northern Arizona has approximately 1,500,000 pounds of wool on consignment in Boston, unsold. One offer was received by us for 28c in Boston for one lot, which we refused. One clip of coarse wool has been sold at 32c in Boston, within the last week. No other offers have been received, as we presume our brokers are holding to meet prices that were paid earlier in the season, for clips sold here around 27½c.

Lambs are beginning to move now to Kansas City and shipments last week sold at \$10.00 and \$10.15 per hundred in Kansas City, netting \$6.00 and better for February lambs. Yearling wethers are being bought by California buyers in small quantities at \$5.25, old ewes around \$4.50 to \$5.00. Some lamb have been sold at California points at \$5.00 and some at \$5.50. Most of the lambs are being shipped to Kansas City, as the California packers are killing only about 60 per cent of the lambs they did a year ago at this time, although their demand for fat stuff is improving and has improved materially within the last week.

Range conditions in northern Arizona are still good and prospects for the rainy season are apparent in the local showers at this time of the year.

Most of the wool growers made a lamb crop of 85 per cent to 100 per cent and some better and the lambs turned out this year are considerably above the average for the last two years.

We are paying a disinfection fee of \$4.00 per car, which we are advised by the agents of the Santa Fe is what it costs them to clean and disinfect the cars.

The California buyers are enjoying a reduction in freight rates on double

deck sheep cars to California points, due to the efficient work of the National Wool Growers' Association and the American National Live Stock Association, in securing a rate for double deck sheep cars the same as for cattle cars, for these shipments.

The Arizona Wool Growers' Association holds their annual meeting on Tuesday, July 6th, at which the Forest Supervisors of the Coconino, Tusayan and Prescott National Forests, and probably a representative from the District Office at Albuquerque, will be present.

I was talking with one sheepman today that has been in the sheep business for about fourteen years until about three years ago, when he took up a homestead and bought some cows and horses and is now endeavoring to again get in the sheep business. He told me he lost \$4,000 in his bet with the Goverment that he could make a living on the homestead in dry range country.

At this time the situation in range matters is running smoothly and the high price of lambs and wool, possibly makes members of the different wool growers associations somewhat indifferent to association affairs, but it seems to be that it is a good time to keep on guard and be in a position to take up matters that might come up in the future. It would appear it is just as necessary to look after the wool growers interests now, as it would be to wait until they require a good deal of attention and have considerable more work to do to get them back to the proper footing.

M. I. POWER—Arizona.

Please note that this paper does not give big writeups to those who advertise in its pages. We never trade editorials for advertising.

Hubbard Investment Co.

BUILDING SITES IN ALL PARTS OF CITY. LOW PRICES. EASY TERMS. A FEW GREAT BARGAINS IN BUSINESS PROPERTY.

66 West Broadway

Salt Lake City, Utah

COOPER'S DIPS

Highest Efficiency—Best by Every Test

A dip that kills only the live ticks and does not stay long enough in the fleece to kill the young ticks that hatch out after dipping cannot possibly yield effective results.

Cooper's Powder Dip is so prepared that a portion remains undissolved in the form of very minute particles distributed throughout the fleece, effectively killing all the young ticks that are bound to hatch out after dipping.

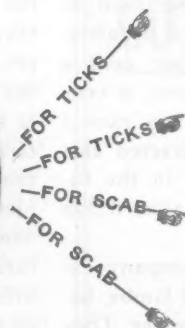
Cooper's Powder Dip acts as a tonic on the fleece and by preventing re-infection for several months after dipping is the cheapest, most effective, and lasting dip ever prepared. This is evidenced by its almost exclusive use in the great sheep countries of Australia and the Argentine.

To those who prefer a fluid dip, Cooper's Fluid is the peer of all fluid dips. Results absolutely guaranteed if it is properly prepared and used.

**Western Agents for Cooper's Powder Dip, Cooper's Fluid Dip,
Stewart Shearing Machines, Kemp's Branding Liquid,
Cooper Wool Baler, Fleece Twine, Wool Bags.**

The Salt Lake Hardware Co.

Best Liquid Dip For Ticks



We used Cooper's Fluid Dip a few years ago and, as I remember, it was very satisfactory. It killed the sheep tick and left the animal in a very nice, clean condition.

MONTANA AGRICULTURAL COLLEGE & EXPERIMENT STATION.
By PROFESSOR R. W. CLARK.

Bozeman, Mont.

For a number of years we have used Cooper's Fluid Sheep Dip. At a dilution of one gallon to 200, it destroys all the ticks; that's what we dip for here. We consider Cooper's Fluid the best liquid dip.

WARREN LIVE STOCK CO.

W. W. GLEASON, Manager.

Cheyenne, Wyo.

During the past six years I have dipped about 400,000 sheep, and during this time Cooper's Fluid Dip has given absolute satisfaction against Scab. It's certainly all you claim, and has been a money-maker for me. I find it far superior to any Coal Tar Dips I have ever used.

ARCHIE ANDERSON.

Ephraim, Utah.

Be Sure It's Cooper's Then Dip

I prefer Cooper's, as it is the Dip for ticks, and I never have had any Scab in the country since I have been acquainted with the Fluid Dip.

Parowan, Utah.

F. L. CULVER.

STOCKS CARRIED THROUGHOUT THE WEST.
WRITE FOR SPECIAL BOOKLET TO

WILLM. COOPER & NEPHEWS

152-154 West Huron St., CHICAGO, ILL.

Montana Branch—C. F. WIGGS, Stapleton Block, Billings, Mont.

Utah Agency SALT LAKE HARDWARE CO., Salt Lake City, Utah

Consolidated Wagon & Machine Company
 Leading Implement and Hardware Dealers
WOOL GROWERS SUPPLIES
 At 50 Places in Utah and Idaho

BARLEY

The best grain feed for sheep—
 better than corn and the price is less

—WRITE US—

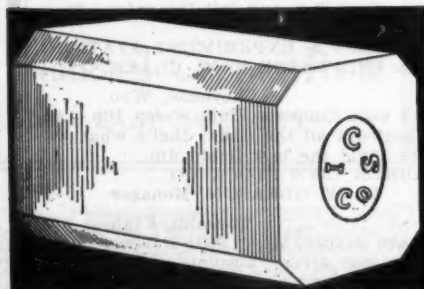
C. A. Smurthwaite Grain & Milling Co.
 201 Deely Block - Salt Lake City, Utah

**"THE SALT OF THE EARTH"
 —THAT SALTY SALT—**

A MOVING MOUNTAIN OF SALT—moving all the time
 on board cars at Redmond.

Salt in large lumps, loose in car, or
 ground fine in sacks. THE STRONGEST AND
 BEST STOCK FEEDING AND REFRIGERATING SALT
 IN THE WORLD. WRITE FOR PRICES.

GUNNISON VALLEY SALT CO.
 REDMOND, UTAH



The most economical and perfect
 stock salt in the world. The proof
 is in the use. Manufactured by **INLAND
 CRYSTAL SALT CO.**, Producers of Royal
 Crystal Salt, Salt Lake City, Utah.

**SULPHURIZED
 ROCK SALT**

SHEARING AT SPENCER, IDAHO

The writer visited the Wood Livestock Company plant at Spencer, Idaho, when shearing was being brought to a finish about the 17th of June. It is always a pleasure to be at this plant at shearing time and see the way things are handled. They have an excellent shearing shed and it is kept clean and the wool is honestly handled. Attached to the shed is a large wool warehouse that will store nearly the whole clip. Also, in connection with the shearing plant is a sheep shed that will hold enough sheep for nearly a day's shearing. By having this covered shed much delay was avoided this year because rain has been of frequent occurrence. This shed in Australia would be known as a sweating pen, but in this country it is just a plain sheep shed. We imagine that this shearing plant is a very practical one, and offers as much opportunity to handle wool intelligently as more expensive plants would do.

The Wood Livestock Company now run more sheep than any other outfit in the West, yet they handled them mostly on deeded or leased land. In the winter everything is on alfalfa and Cottonseed cake. This spring the sheep came to the shearing shed in fine condition and yielded a beautiful clip of wool of which 80 per cent is combing. The wool, however, is very clean and will not shrink to exceed 55 per cent. It was contracted this year for the last time, for in the future this wool will be sold after it has been shorn.

The Wood Livestock Company expect to market about 60,000 lambs, beginning the middle of September. They have already been offered 6½ cents for all their lambs on board the cars, but refused to sell. For many years this company has weighed each car of lambs before they were loaded so that they know approximately what weight to expect.

In an effort to reduce the losses at lambing time as well as labor cost, this company is preparing to build fences and lamb in pastures. Also,

they figure on installing a small scouring plant to determine the shrinkage of their clip so as to get at its value.

PREPARING AMERICAN WOOL FOR THE MARKET

The improved method of preparing Wyoming wool for the market which has been introduced at Rawlins, Wyoming, is full of promise for the development of wool growing in the United States. The prospects of success are the brighter because the mistake of trying to do too much has been avoided. The old method has been to pack the wool in bags or bales as it comes from the sheep regardless of grade and condition. The Rawlins method consists in separating the fleeces into grades and packing each grade in neat, compact bales, each plainly marked to indicate the kind of wool it contains. The surprising feature of the improvement at Rawlins is not that it has been adopted, but that the preparation of American wool for the market should have been neglected to such an extent as to make this common sense step necessary in the year 1915.

An illustrated description of the Rawlins method of packing wool for the market appears in this issue, taken from the National Wool Growers. The movement to improve the condition in which American wool is sent to market should be extended to every part of the country. Already the work done by the two shearing plants at Rawlins has stimulated the wool growers of the vicinity to follow their example. This is shown by the following extract from a letter received from John J. Cullen, the manager of one of the shearing plants at Rawlins which have adopted the improved method:

"I have your letter of the 20th inst in reference to the new method of preparing wool for market at our shearing plant. I wish to say to you that we not only put our wool up in a much better way for the market, but we have brightened the minds of all sheep men in this country that have visited our

plant this season. I must say that we sheep men did not know the value of our wool, nor did we know that instead of breeding our sheep so they would produce a good grade of wool in some instances we were breeding to an inferior grade. Now that our wool is graded and baled every grade to itself we can readily see that we need to improve our wool."

In order that complete success may be attained, it will be necessary for the wool buyers of the country to give substantial encouragement to the enterprising wool growers who have taken this step forward. The wool that is carefully graded and packed in the West should have the preference in the markets of the East. This result can be brought about by making the improved method known to all the wool buyers of the country in order that they may compete for what the Rawlins shearers call the "American system" of packing.

The country is having a most convincing object lesson as to the danger of depending on foreign countries for the necessary supply of wool. At the present time the American people are obtaining about half of the wool for their clothing by permission of the British Government. As a war measure no exception can be taken to this regulation of the embargo, but the condition of industrial dependence which makes such a situation possible should be changed. The domestic clip should be developed to supply more nearly our requirements. To attain this object it is necessary to produce wool in the United States by the most improved methods and to protect both wool growing and wool manufacturing by an adequate tariff against foreign competition.—Textile World Record.

WOOL DESTROYED BY FIRE.

We were unfortunate in losing 312 bags of wool by fire started by a spark emitted from a locomotive.

Our wool was piled in three separate piles at our shearing pens located on the line of the E. & P. narrow gauge

This Space reserved for Montpelier Stock Yards, grazing pastures, and other stock yards operated by Leary & Warren Co., lessees, including the Union Stock Yard of Salt Lake City.

THE BEST SERVICE

**FOR BANKS AND STOCKMEN
HAVING ANY TRANSACTIONS
AT THE CHICAGO LIVE STOCK
MARKET IS SECURED BY AN
ACCOUNT WITH**

**THE LIVE STOCK EXCHANGE NATIONAL BANK
OF CHICAGO**

"THE BANK OF GOOD SERVICE"

CAPITAL \$1,250,000

RESOURCES \$15,000,000

COTTONSEED CAKE AND MEAL

**PACIFIC COTTON CO.
MEDBERRY COTTON OIL CO.**

DALEXICO, CALIFORNIA

MAKERS OF COTTONSEED CAKE AND MEAL

BALFOUR GUTHRIE & CO.

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When Writing to Advertisers Mention The National Wool Grower

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SALT LAKE CITY

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railroad, and by reason of certain circumstances had not been shipped. There was a man standing by the wool at the time the train passed by but did not notice the fire until he had walked to his cabin some distance away, and by the time he could return the fire had gained such headway that all he could do was to save us 58 bags that were in a pile a little to one side. By the time help arrived the grease in the wool was running, so before the fire could be put out the wool was almost a total loss. We have a little salvage, but nothing to speak of.

I have been told by many that wool will not burn, but with our experience am inclined to think it will. We had an extra fine clip this year and expected splendid returns.

A. E. KIMBALL, Nevada.

If you give a writeup to the advertiser who has good sheep you have got to do the same for the advertiser who has poor sheep. We are not willing to do that.



LARAMIE FEED YARDS OPEN.

The impression seems to be pretty general with the western shippers, that while they can unload and feed at Laramie, under the Wyoming quarantine law, they are not permitted to turn out on pasture and must feed hay. The conditions as to feeding here are just the same as they were previous to the outbreak of the foot and mouth, with the exceptions that sheep must be loaded from yards and into cars that have been disinfected since February 7th, 1915, and unless this was done the railroads could not haul them through the state.

Another thing shippers do not want to do and that is to bill their sheep for "immediate slaughter" which has been the case in several instances of late. In case this is done, it prevents any part of the shipment going back into the country as "feeders."

A few days ago we had a shipment from Brogan, Ore., while the way-bills showed that the shipment was loaded out of disinfected yards into disinfected cars, the certificate was missing. In order to move out, the owner signed a statement that the sheep were for immediate slaughter, whereas part of them were feeders and should have been sold for such, but all had to go to the packers.

The way-bills should bear no notation whatever, except that which is required by the connecting lines, such as "loaded out of disinfected yards into disinfected cars." This the shipper should be very particular to see that it is put on. Otherwise they are liable to be held up at some feeding point waiting for this information.

It might be well for you to mention these facts to the sheepmen in your next issue of the Wool Grower.

H. A. SMITH, Laramie.

Many wool growers have so far neglected to pay their dues for 1914. It seems to us that the more prosperous sheepmen are the less disposed they are to support their organizations.

MORE SUBSCRIPTIONS.

I am inclosing seven subscriptions for the National Wool Grower from sheepmen in the John Day Valley of Oregon.

In this section stock is in fine condition and the range is excellent. The wool is well grown, but is very light.

J. G. HOKE, Oregon.

SHEEP ON THE FARM.

Much is seen in the papers these days about keeping sheep on the farm, and the farmer is led to believe that fifty sheep won't eat anything or cost anything to keep.

Of course it is foolish to urge the keeping of sheep on every farm, because very many farms are not adapted to sheep culture. The farmer can make a reasonable profit if he keeps a flock of not less than fifty head of sheep. Less than this number is a nuisance, and will not bring in sufficient return to justify the care that they demand. Of course less than fifty head of registered sheep, kept for stud purposes, would be sufficient, but I am referring to market sheep.

Having had some experience in this matter, I will give about what I believe to be the cost of keeping sheep on the average farm.

Fifty head of ewes and two rams will cost \$340, on which 6 per cent interest must be charged, amounting to \$20.40. The average loss of sheep, not including dog loss, is not less than 6 per cent per year, and this amounts to \$19.62. The labor cost of handling fifty-two sheep at fifty cents per head, would be \$26.00 per year. The fifty-two sheep must have clover or alfalfa hay for five months, say from November 15th to April 15th. During that period they require three pounds per day or a total of eleven and one-half tons for the winter, which, at \$8 per ton, would cost \$92. For three months, beginning about lambing time, the ewes should have one pound of grain per day, which, at 1 cent a pound would cost \$45.00. Then you have

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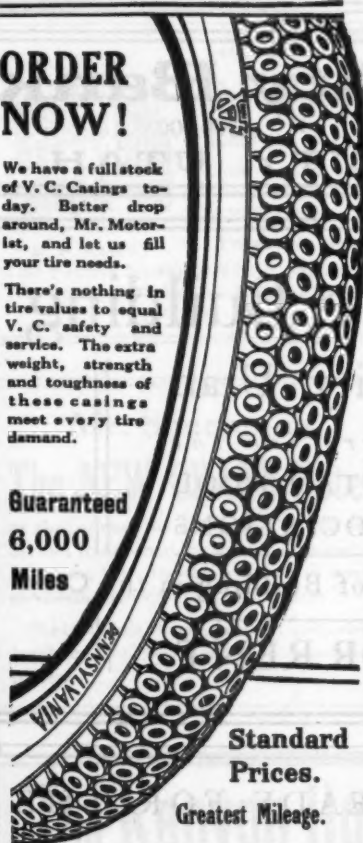
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seven months pasture, which ought to be worth as much as five months of hay, but I will charge only 5 cents per month for sheep for pasture, or a total of \$18.25. On this basis the cost of keeping fifty-two sheep one year would be about as follows:

Interest on investment.....	\$ 20.40
Loss of sheep.....	19.62
Labor cost.....	26.00
Five months' hay.....	92.00
Three months' grain.....	45.00
Pasture.....	18.25

\$221.27

As against this cost you would have an income from wool of about \$1.50 per sheep, or \$78.00.

If the lamb crop to be marketed equaled 90 per cent of the ewes, which would be a good average, you would have forty-five lambs to sell. Forty-five lambs at \$5 per head, would return, \$225.00.

This gives a total gross income from fifty-two sheep of \$303 per year, and the total expense of running them, \$221.27, leaving a net profit of about \$1.55 per head.

Probably in actual practice the net return would be less than \$1.55, for we have deducted nothing for taxes, the cost of special equipment required, such as fences, etc., or depreciation in the value of the ewes and rams.

On any basis the farmer should figure on making \$1.00 per head on each ewe, and that is better than most kinds of livestock will pay, except dairy cows. Of course the farmer understands that the dairy cow gives the greatest return, and she is more responsible for the decline in sheep husbandry on the farm than all other causes combined.

If those farmers with farms adapted to the maintenance of sheep, would go into the business with the understanding that there is just a reasonable profit in it, they might stick to the business, but if they go into it with the assumption that it does not cost anything to keep a few sheep, the disappointment will be so great that they will sell out at the first opportunity

just as they have done dozens of times. Of course sheep eat a lot of weeds, but so do cattle and horses, and the farmer should figure that seven sheep will require as much feed as one dairy cow.

E. C. JENKINS, California.

BIG WOOL SHORTAGE.

(Australian Pastoral Review.)

An analysis of the rain which fell in many parts of Australia as our last issue was coming into print, reveals the fact that in most of South Australia and in those districts of Victoria which lie to the south of the Divide, the break in the season was more or less complete. To the north of that, however, in the important central, Wimmera, and Mallee districts of Victoria the rain thinned, averaging something less than an inch, when three or four were urgently needed, whilst to the north of that again it gradually petered out to be lost in what is fast becoming the Riverina desert. The coastal districts and northwest plains of New South Wales were more favored. One of the most serious features of the time is the fact of the drought spreading to Queensland, where hitherto the season has been fairly good, though a little patchy. Now, however, stock are beginning to die in great numbers in some districts of that state, and the outlook is the more gloomy now that the rainy season in Queensland is past, and the long dry northern winter has to be faced.

The worst of the whole business, alas, is yet to come. The lambing is about to begin on a large scale, and what this means, with weak and starved ewes, only pastoralists who have been through the bitter experience know. The mortality amongst the flocks of Australia has only just begun—hundreds of thousands of ewes must die at lambing time, and the losses do not stop here, as on most stations in the drought area the lambs

will be knocked on the head as they are born in an endeavor to save the ewes. One has to pause and reflect what all this means. The fact that in even really good years the ever-increasing demands of freezing companies account for almost the whole of the natural increase in our flocks, gives every ewe and ewe lamb in the country a great potential value. The millions of these breeding factors which are being lost in this drought is a disaster to the community not for this year only, but in perpetuity. We lost practically ten million sheep in the short, sharp drought of 1912, and when this calamitous season came upon us we had not recovered one-third of this loss; it is impossible to estimate what Australian sheep figures will have declined to by the end of the current year.

The Decrease in the Clip.

The exports of wool from Australia for the ten months ending April 30th show the serious deficit of 594,950 bales. What the position will be at the end of the statistical year no man knows. The shipments of wool this season have been so dislocated by the lack of tonnage and the curtailment of sales that the present deficit does not quite reflect the true state of affairs. This is shown by the fact that quite 300,000 bales are in store or in sight for sale in Australia, as against certainly not more than 150,000 at this time last year. A more reliable indication of the shortage in actual production is shown in the receipts at the seaboard, which in New South Wales and Victoria alone are 117,000 bales behind those of last year. Though the shipments may, owing to curtailment of sales, show a bigger decrease, it is probable that the amount of wool produced in Australia during 1914-5 will be about 200,000 bales less than the clip of the previous season (1913-4.) The devastating effect of the present drought will show itself more in the 1915-6 clip, which, though it is yet early times to speak, must show a further decrease on this one of 300,000 to 400,000 bales.

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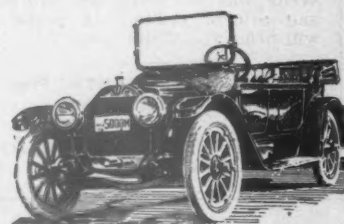
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OIL-MIXED CONCRETE.

After extensive laboratory and service tests the Department of Agriculture has secured results which appear to establish definitely the value of oil-mixed concrete for damp-proof construction. Detailed results of these tests, which were carried out in connection with the work of the Office of Public Roads, are contained in the new bulletin, No. 230, of the Department, entitled "Oil-Mixed Portland Cement

Concrete." Briefly summarized, the conclusions to be drawn from them are that the admixture of certain mineral oils in small proportions, not to exceed 10 per cent of cement used, does not lessen the tensile strength of mortar; that the decrease in the compressive strength of mortar and concrete is not serious; that concrete mixed with oil takes much longer to set hard, perhaps twice as long, but that the increase in strength is nearly as rapid in the oil-mixed material as in the plain concrete. The use of oil does not make the concrete impervious to heavy water pressure, but it does make it practically nonabsorbent under low heads.

The value of oil-mixed concrete is said to be particularly great in the construction of basement floors and walls, watering troughs, cisterns, barns, silos, and in all parts of concrete structures that are to be made damp proof.

The oil should in no case exceed 10 per cent of the weight of the cement, and for the most part 5 per cent is all that is necessary. Since a bag of cement weighs 94 pounds, 4.7 pounds to oil, or about $2\frac{1}{2}$ quarts, should be added for each bag of cement used in the mixture. The sand and cement should be first mixed with the proper amount of water into a stiff mortar, to which is added the correct amount of oil, and the whole mass again thoroughly mixed until all traces of oil have disappeared. Particular care should be taken to insure that the oil is thoroughly incorporated in the mixture, and the time of mixing should be practically double that when the oil is not used. For this reason a continuous mixer should not be used in oil-cement-concrete work, as it is difficult with this type of machine to increase the time of mixing sufficiently.

The kind of oil is also important, and the technical specifications are suggested in the bulletin in order to prevent the use of certain oils which might tend to impair the strength of the mortar or the concrete.

For practical use the addition of oil

will be found particularly useful in the construction of basement floors and walls. Many of these now in existence are continually damp, and such a condition may be remedied by the application of an oil-mixed mortar coat to the old surface. A mortar composed of 1 part of cement and 2 parts sand and containing 5 per cent of oil should be sufficiently non-absorbent for this purpose.

Watering troughs and cisterns made of oil-mixed concrete should also prove of considerable practical value in the conservation of water. In the construction of barns, where oil-mixed concrete is used. Owing to their noticeably drier than when ordinary concrete is used. Owing to their durability, cleanliness, and resistance to fire, concrete barns are becoming more and more popular, but they suffer from the disadvantage that during a long beating rain the side walls are inclined to absorb much moisture which ultimately penetrates into the interior. The addition of oil to the extent of 5 per cent of the weight of cement in the concrete used in the side walls obviates this objection. Barn floors can also be constructed in the same way with advantage. A damp-proof floor is warmer because of the lack of exaporation from its surface and it is also more sanitary than an ordinary concrete floor because of its nonabsorbent character.

Attention is called, however, to the fact that extreme care in proportioning, mixing, and placing the concrete is absolutely necessary if the addition of any waterproofing agent is to be of value. The process of mixing oil with concrete has been covered by a public patent, so that any one is at liberty to use it. The methods of using this material are discussed more fully in the bulletin already mentioned.

God helps those that help themselves, but the National Wool Growers Association helps every sheep man in the land whether he is a member or not.

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